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Covering Home Economics Education, Domestic Art, Hygiene, Food and Nutrition

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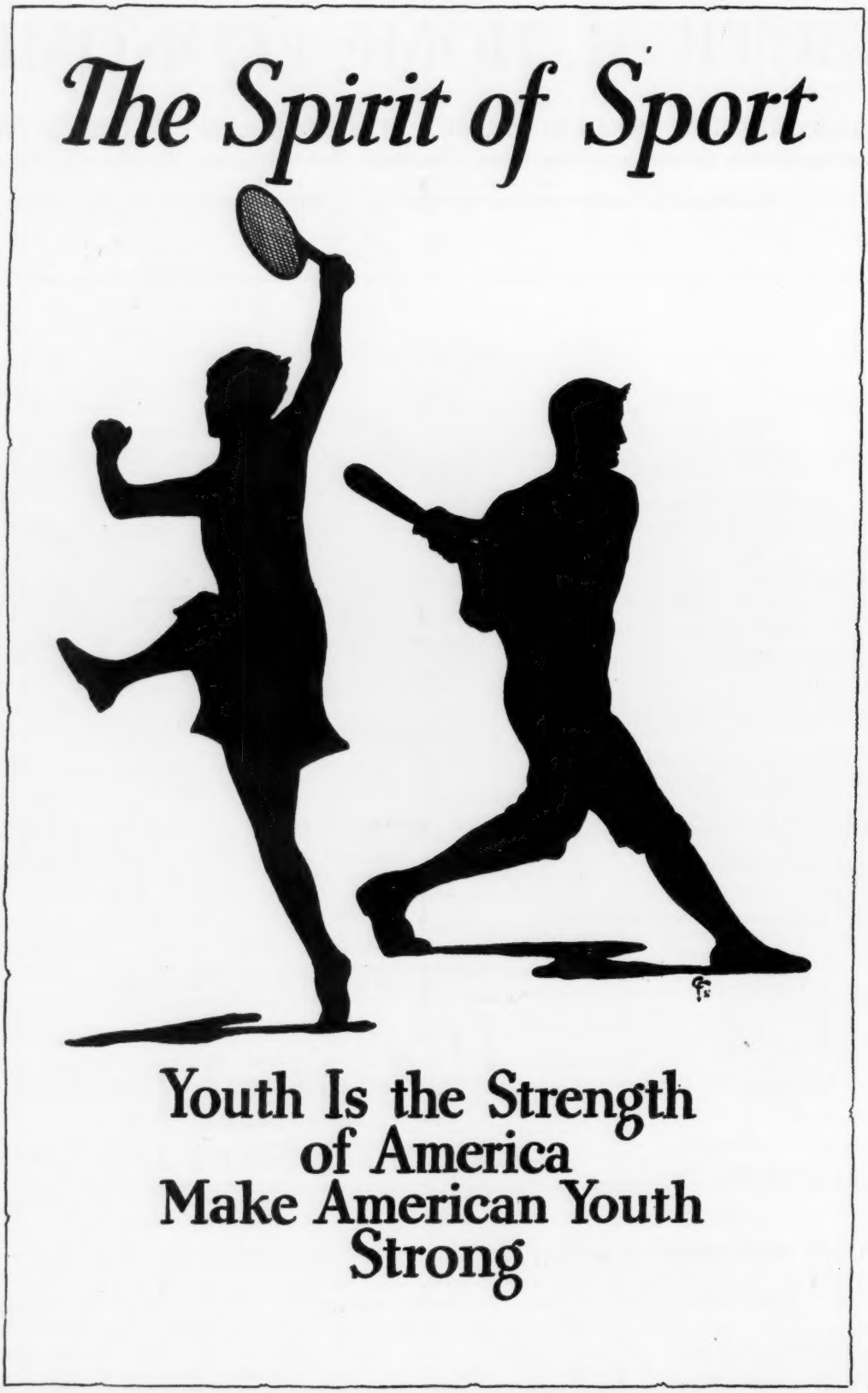

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Practical Home Economics

Elementary Homemaking in Iowa

By Josephine McMullen

State Supervisor of Vocational Homemaking Education

"THE original conception of acquiring skill in cooking and sewing as the ultimate goal of training for homemaking has been for years laid away in the educational boneyard and I hope it may remain there forever and ever." This statement made by Prof. W. H. Lancelot, head of the department of vocational education at Iowa State College, at a recent meeting of the state home economics association expresses the thought of the committee members who compiled the suggestive course of study for home economics in the elementary schools of Iowa. A second committee, again under the chairmanship of Miss Cora B. Miller, head of home economics education at Iowa State College, is now at work upon a course of study for senior high schools.

Interests, ideals, abilities and appreciation are goals of present homemaking education. These goals did not exist in former sewing and cooking courses and in order that they may not be missed in present courses, the committee has stated the aims of elementary homemaking education as giving such training as will enable girls to:

1. Assume willingly their responsibility in the family group.
2. Select adequate food for themselves as well as for others.
3. Plan, prepare, and serve simple, adequate, inexpensive home meals.
4. Care for and make simple rearrangements in their own rooms.
5. Plan and construct simple garments.
6. Use every-day social customs with ease.
7. Aid in directing the recreation of younger brothers and sisters.

The unit of food study for eighth grade girls with a list of nineteen specific objectives may startle anyone who has been thinking in terms of "cooking" education. Manipulative, management and judgment skills as well as interests and ideals are shown in the following typical objectives:

1. Interest in the home and realization of the part that the mother plays in it as a teacher, as a spiritual guide, as a manager, and as a worker.
2. An ideal of a home where every member of the family contributes to the maximum of his or her ability.
3. Habit of eating the kind and amount of food that the body needs every day.
4. An appreciation of the value of saving time, money, and effort in meal planning and preparation.
5. Ability to get breakfast on the table in good condition at the proper time.
   a. Ability to set the table attractively for a simple meal.
   b. Ability to keep several processes going at one time.

JOSEPHINE McMULLEN

Some suggestions for information and knowledge for the breakfast unit as outlined in the course of study are: knowledge regarding cost, preparation, and planning of meals; reasons for including milk, vegetables, fruits, cereals and egg in the diet from a nutritive standpoint; standards for judging health and knowledge of how to attain health; rules for simple home table service.

If you would be convinced that these objectives carry through and that the subobjectives carry through and that the subject matter is teachable and worthwhile, go with me to visit three representative schools.

A city school is our first stop. Health posters are displayed around the room and the teacher tells us that they have been there for three days; that after reading from Happy's Vanity Case, the girls decided upon the signs of a healthy girl and scored themselves by the Health and Beauty score card given in Winchell's "Food Facts for Every Day."

This morning when the class assembles each girl is asked to write on an unsigned paper just what she ate for breakfast that morning. As the slips are read, the teacher groups the different foods under fruits, cereals, beverages, hot breads, and a miscellaneous group of foods, some of which appear "even in the best of families." "Oh's" and "Ah's" from the class members as slips were read: "O'Henry Bar," "Toast, orange and cocoa," "Bread and coffee," indicate that the class recognizes the difference between an adequate and an inadequate breakfast. In discussing the different groups of foods listed on the board, opinions differ as to which foods are desirable in a breakfast menu. It is then that three mimeographed breakfast menus are given to each girl and as an assignment for the following day she is to decide why one of the menus is most suitable for her for a wintry morning breakfast. Reference books are in demand and we leave the class feeling assured that at least nine of the nineteen objectives are going to be achieved.

(*Continued on page* 91)

Seasonable Foods

By Colonel L. Brown

EDITOR'S NOTE—This is the third of a series of articles that Mr. Brown will write for PRACTICAL HOME ECONOMICS. While we realize that local conditions somewhat affect market supplies, nevertheless the information given is applicable to all parts of the country. Mr. Brown is an authority, having formerly been in charge of the New York Office Market News Service—Fruits and Vegetables—United States Department of Agriculture, and we feel sure that these talks will offer many suggestions for your foods or marketing classes.

ALMOST at the exact time that winter officially ends, several new vegetables appear as if by magic on the green grocers' stands. In addition, some of the familiar year-round products become more abundant as the weather grows milder. Despite all the ingenuity of our sub-tropical truck growers in producing winter vegetables springtime still means additions to our vegetable supply.

Some vegetables are seasonal and can scarcely be coaxed into growth except at certain periods of the year, although the majority grow without reference to the calendar if temperatures are high enough. The most important of the seasonal vegetables now beginning to appear on the market—and which by the end of another month will be abundant everywhere—are asparagus, rhubarb and early or Bermuda onions. New cabbage, new potatoes, spinach and lettuce—which are far from novelties at any season of the year—are particularly abundant just now.

To be sure, a small amount of asparagus and rhubarb is hothouse grown during the winter months, but the hothouse yields feeble and anemic products compared with the more robust ones of the outdoors. As for the Bermuda onions, they come only at the appointed time, which is alomst invariably the first week in April.

Asparagus is a prominent member of that group of vegetables which has grown rapidly in popular favor during the past few years. As recently as 1921 the annual shipments of this vegetable did not total 1,000 carloads a year, while now they approximate 3,000 carloads; canners in 1921 packed only 1,000,000 cases, whereas today they pack more than 2,000,000 cases a season.

The color of asparagus depends largely on the method of culture; if it is allowed to grow entirely above ground it will be green, while if banked and produced beneath the surface lack of sunlight causes it to be blanched or white. Unquestionably there is sound logic in demanding green rather than white asparagus, because the greener the color the greater the vitamin content. At the same time canners have found that the white product suits their purposes better.

Although large-sized asparagus invariably commands a much higher price than the small or medium sizes, there appears to be little actual difference in eating quality between the various sizes. Indeed, one is likely to get a higher percentage of edible portion out of a bunch of small or medium sized asparagus than from the largest size.

The principal thing to watch in buying this vegetable is to get stock that is tender and fresh. Good, tender asparagus, can be cut easily with the thumbnail at least halfway down. Also young tender stalks will snap readily while tough or wilted will bend and twist. However, not every retailer likes to have his customers apply the thumbnail and snapping tests, so other tests may be necessary.

FORTUNATELY, signs of quality are quite apparent. Young stalks have tightly clasped pointed tips and round stems, while stock that is overmature and woody begins to spread at the tip and the stalks become angular and irregular. Somitemies stalks begin to branch out from the upper leaf bracts, which is a sure sign of overmaturity.

Most asparagus is sold in bunches nowadays and you may be surprised to find how much the bunches vary in weight. Variations of a half pound per bunch are not infrequent, so it often pays to have the retailer check the weight of several bunches. Other factors being equal, it will naturally pay to select the heaviest bunches.

The selection of rhubarb seldom presents much of a problem. Stock should be fresh and crisp above all else, and most everyone prefers rhubarb of red or cherry color. Thick, succulent stalks are preferable to flat, thin or slender ones since there is less waste. Then, too, stalks that are of large size have generally grown more rapidly and are apt to be better flavored. Rhubarb is freqeuntly expensive at the beginning of the season, but after supplies begin to arrive in market freely it is one of the cheapest of the spring vegetables.

The flattened white and yellow onions that begin to appear on the market after the first of April are called Bermuda onions, possibly because their commercial culture was first confined to Bermuda. A limited quantity still comes from Bermuda, but most of the onions of this type are produced in Southern Texas and Southern California.

They are flatter in shape, milder in flavor and usually smaller in size than the standard varieties of late onions. The Bermuda type onions are not so hard as the late onions, but they should be reasonably firm rather than soft and spongy in texture.

THIS type of onion spoils easily and one should always make sure about their soundness when buying. At their best these onions should be thoroughly dry, with small, well-dried necks and should be regular in shape, not angular or split. Small Bermudas are preferable for boiling and medium-sized ones best for most other purposes. Extra large sized stock is seldom economical.

A close relative of the onion that is most plentiful at this season of the year is the shallot, or small green bunch onions. Shallots are one of the most inexpensive vegetables of springtime because they can be grown so easily in most parts of the country. Shallots should be young and the white portion should be cylindrical down to the roots. When they form bulbs they are generally hot and inferior in flavor.

Radishes are another bunched vegetable that is perhaps more plentiful in spring than at any other season. There is a wide variety of colors and shapes, but these do not affect their eating quality. When properly grown radishes are solid and firm without pithiness. Hollow or pithy radishes can be easily detected because they feel springy when squeezed. And always look at the tops. They are an index to the freshness of this vegetable.

Some mention was made of cabbage in an earlier article, but it is of interest at this time because large quantities of early cabbage are now coming to market. Early cabbage is more tender, green and leafy than the cabbage stored for winter use. It is more perishable and care should be taken to purchase crisp sound stock.

New potato season is just beginning in earnest. The freshly dug immature new potatoes are easily recognized by the facility with which the skin "feathers" or slips off. Small size alone is not a sure

sign of newness because astute but not too scrupulous dealers have found they can dispose of small-sized old potatoes as "new" potatoes. Beware of the small potatoes that have tightly set skins.

Fruit season likewise begins anew with springtime with strawberries first on the season's fruit list. The real strawberry season does not begin until late in April, but supplies gradually increase after the middle of March.

Very few fruits are as tender as the strawberry and one of the most common troubles of this delicious fruit is decay or moldiness. If the berries have a fine weblike mold over the top or present a sticky, mashed appearance they are almost certain to show a high percentage of waste. Another infallible indicator of spoilage is conspicuous juice stains around the bottom of the box, even when the top berries appear sound. Decay may be quite apparent upon close examination, yet it is easy to assume that a box of berries is in fine condition when it decidedly is not.

Sand or dirt is bound to give trouble because it is difficult to remove from strawberries and, if possible, stock showing these defects should be rejected. Early in the season many boxes show immature berries with green or white tips, but these are so conspicuous that they are easy to avoid.

Medium-sized berries give the best results for canning or preserving, as they do not break up so badly, but most people prefer large-sized fruit for serving fresh. Small berries are not only deficient in flavor but they entail about twice as much work in preparing them for the table.

And lastly, get full measure. A full quart of berries weighs 20 ounces net.

March and April are good apple and orange months. California Navels are fully matured at this time and Florida ships some of its finest quality fruit during these two months. You will find that the small-sized oranges are far more economical than the large sizes this season, but some seasons the large oranges are relatively cheaper. It always pays to compare prices between sizes when purchasing. The varieties of apples that are especially good at this time of year are Baldwins, Winesaps and Yellow Newtowns or Albemarle Pippins, the last two varieties being identical.

Apples have been in cold storage all winter and they do not keep very long after being taken out at this time of year. Hence it is not good buying policy to purchase more than a few days' supply at a time. Scald, overripeness and internal breakdown or browning of the flesh are common defects of fruit late in the season. Scald starts as a slight discoloration that soon envelops the entire fruit and while confined mostly to the skin is really a serious defect. Overripe or brown fleshed fruit is likely to be soft or flexible when held in the palm of the hand and pressed tightly.

There are probably no more strictly American food products than maple syrup and maple sugar. Springtime is the season for syrup and sugar making, and in the smaller cities and rural communities of the North large quantities are made for local consumption. In a few favored sections, such as the Adirondacks and Vermont, these products are produced commercially for the large markets.

While many of the older generation may stoutly maintain that "you can't get syrup and sugar like they used to make," the facts are against them. Maple products have been improved by scientific methods until they are far superior to the old-fashioned products.

Commercially, maple syrup is graded according to color, the lightest colored being highest in quality. The very finest quality is a light amber color and has the most delicate flavor. Maple sugar is also graded according to color. A high-grade sugar should not only be of light color but should be soft and crumbly rather than dark and of a rock-like hardness.

The keeping quality of maple syrup depends to quite an extent on whether or not it has been pasteurized. Syrup that has been pasteurized does not ferment or develop undesirable flavors and is much safer all around than the unpasteurized.

Most of the syrups sold over the retailers' counters as maple syrup are blends of maple and cane. If you will look closely at some of the popular priced brands you will note that the label so states. They never have the delicate flavor of the pure product, but they approximate it and are much cheaper. So far as healthfulness is concerned, there is no reason to fear the blended syrups.

With the approach of milder weather, the fish supply begins to increase again. Those along the seacoasts begin to note lower prices in vogue at the fish markets, while inland there are more abundant offerings of fresh water fish.

Unless you are near one of the important fish distributing centers you may have to take what you can get in the way of fresh fish, but sometimes it is better to take nothing. Fish is one of the most highly perishable of all our food products and it is good protection to be able to distinguish fresh fish from those not so fresh.

Here are a few tips on the selection of fish: Good, fresh fish should look bright and shiny—have a "new" look, in other words; the flesh when dented with the finger should be firm and elastic. It is always a bad sign when the flesh has no elasticity and dents easily. The eyes should be full and bright rather than dull and sunken and the gills ought to have a bright red rather than faded or washed out color. If the scales come off too easily it indicates lack of freshness.

The thickness and plumpness of fish are important signs of quality. Fish dealers generally consider that plump heavy fish that are thick through the shoulders are superior to long or slender specimens of the same species.

Several kinds of marine fish are plentiful during the spring months, of which shad, haddock, flounder and mackerel are the most common. Fresh water fish are quite abundant in many parts of the country during the spring months. These include suckers, perch, pike and whitefish. To some extent the supplies are governed by the game laws of the various states.

Like many another food industry, the fish industry is undergoing marked changes. The trend today is toward fish filets rather than shipping the entire fish to the retailer, which, after all is a wasteful and costly method. The quantities of fish that are now sold as filets have increased many fold in the past few years, and some authorities believe that soon the only whole fish we shall see will be in the aquariums.

Fileting fish as done commercially consists of cutting out the best portion of the meat without the bones and freezing it by a special process. This is all done at the port where the fishing boats dock and the fish are frozen before they have any chance to deteriorate. The freezing is done in such a manner as to preserve all the natural juices of the fish. If you live in the interior of the country and your retailer offers you marine fish in filets you are taking less chances than in selecting a whole fish and having him clean it to order.

SEASON SUGGESTIONS FOR MARCH AND APRIL MENUS

Fresh Vegetables

Asparagus
Rhubarb
Early Onions
New Cabbage
New Potatoes
Radishes
Shallots
Spinach
Lettuce

Fresh Fruits

Strawberries
Oranges—Florida and California
Apples—Baldwins, Winesaps, Yellow Newtowns, Albemarle Pippins

Maple Syrup and Sugar

Fresh Fish

Marine Fish—Haddock, Mackerel, Shad, Flounders
Fresh Water Fish—Suckers, Perch, Pike, Whitefish

How It All Began

By E. Sunderland

This playlet was given by an 8A group of girls at The Thomas Jefferson Junior High School, Cleveland, Ohio.

In staging this little play, the audience had been asked to use their imagination, as we were working under difficulties, and with very limited stage properties.

The children wore dark brown suits that had been used in "The Courtship of Miles Standish." Over their shoulders they flung fur neck pieces and also draped fur neck pieces around their hips. The deer was an old muskrat coat. Inside of it were pieces of red paper to represent meat. A large darning needle with a string in it was used to represent the bone needle and tendon. Then the Little One's deer skin coat (a brown dress) was also inside of the coat. No antlers were available. We used a spatula for the knife, as no one had time to make a knife of hardwood.

For the fire we had wired an electric light bulb covered with red paper.

When Great One brings in the deer and the blazing brand, the light was turned on. For the blazing brand use either a flash light fastened on to a stick, or a sparkler of the kind that is popular on the Fourth of July.

PROLOGUE—Because the animal had learned to use its paws, it was first to arise from the ooze.

Cast of Characters

Great One—A man (a tall girl)
Loving One—A woman (a tall girl)
Little One—A child (a small girl)

Act I

Scene 1

Interior of cave—cold, bleak. The only exit is the cave opening left center (L. C.). A man, woman and child are discovered in the center of the stage. They cower and shiver. Outside a wolf howls.

Little One—I'm so cold. So cold. So hungry.

Loving One—Hush, little one. Hush. When the wolf has gone Great One will slay a deer for us. Come to my arms. I will warm you. (The child is enfolded in his mother's arms.)

Great One, with his mammoth club slung over his shoulder, passes to left center (L. C.) and stoops to look through the low mouth of the cave. He returns to the center of the stage, picks up a large club, and speaks to Loving One.

Great One—The wolf has gone. I must hunt, that you do not starve. Here, Loving One, is Big Stick; use it that you may protect yourself and Little One while I am away. (He hands a large club to Loving One, passes to left center and exits.)

Curtain.

Scene 2 (same as Scene 1)

Enter Great One(L. C.), carrying a deer slung over his back along with his club. In his hand he carries a blazing branch.

Great One—Get wood, much wood, Litle One. (Little One exits through the mouth of the cave.)

(Great One passes to center of stage and drops the deer at Loving One's feet, where she crouches.)

Great One—Look, Loving One, the gods heeded my prayers. See what I have brought. With Great Club I slew this deer, and as I trudged through the forest with it slung over my shoulder rain fell, a great flash and crash that tore the heavens asunder blinded and deafened me. When I could see once more, lo, there the great oak was split in twain and the underbrush was blazing. It warmed me. The rain ceased. So I plucked a bough from the burning and have brought this blazing branch, all the way, to you and Little One. Guard it night and day. Never forsake its sacred presence. It is a gift from the gods. Tend it as carefully as if it were your own child. Let it die and the wrath of the gods may destroy us.

(Enter Little One at L. C., carrying wood. He crosses to center of stage and holds the wood. Great One builds a fire. Little One tends the fire, while Great One skins the deer and Loving One cuts it up with a wooden knife. A piece of meat falls into the fire. Loving One finds a small bone that has a hole in it. She slips a sinew from the deer through it.)

Loving One—Ah! look what I have found, a small splintered bone with a hole in it. Why, this sinew from the deer goes through it nicely. I believe I can fasten skins together with it. (She tries it on the skin of the deer.) It holds. Is that not marvelous! The gods be praised. (Makes a low obeisance.)

Little One—Oh! oh! the meat has burned my finger! (He jumps up and down in pain, shaking his hand, then claps his finger into his mouth.) Ah! that tastes good. Why, the fire has made the meat taste better. (Turns first to his mother and then to his father.) Loving One, taste. Great One, taste. (They taste the cooked meat and smack their lips.)

Loving One—I must cook all of this deer meat. But how can I keep it from burning in the fire?

Great One—Loving One, I will get green branches from the willow to rest the meat on.

(A clay pot stands in front of the fire.)

Little One—Look, Great One, my pot that I fashioned from the clay of the river is all baked hard. See, is it not wonderful! May I go with you, to the river, while you cut the green willow branches?

Great One—Yes, Little One.

Little One—And may I take my pot of clay?

Great One—Yes, Little One; bring your pot of clay. (They exit.) (L. C.)

Loving One—(Shaping and sewing a garment of skins for Little One.) I can hardly wait until they return. These skins—look how they hold together! My Little One will not be cold now. (She throws wood on the fire.)

(Enter, L. C., Little One and Great One. They pass to the center of the stage. Great One carries willow branches and the clay pot. Little one carries green leaves and birch bark.

Little One—See! Loving One; my beautiful pot of clay holds water. Now you need not go so often to the river. (Takes the pot from Great One and deposits it proudly on the floor of the cave near his mother.)

Great One—Here are the green willow boughs, Loving One, that I have brought from the river bank. I will make a rest to place the deer meat on. (Makes a rack.)

Loving One—Come, Little One, come see what I have made you. Here is a little suit that I have shaped from the deer skin. It it not better than the old? (Little One proudly puts it on and struts back and forth, admiring himself.)

Little One—Loving One, it is beautiful. It is so soft and warm. (He runs to his mother and embraces her.)

Loving One—Great One, let me now cook the deer meat.

(Loving One goes to the fire and places the deer meat on the rack that Great One has made.)

(Little One makes cups from the birch bark.)

Little One—Great One, I have made these cups from the birch bark that you cut for me when we passed through the forest. Look! See how they are held together with thorns that I plucked from

(*Continued on page* 86)

*Suggestions for Millinery Classes**

REAL individual problems in building hats appeal to all young girls—especially at this time of year when thoughts of the spring wardrobe are upmost in each mind. Attractive, inexpensive hats that possess the elements of style, and that are not extreme are usually the types that are most in demand. Two of the three hats pictured here are made by crocheting twisted crepe paper and shaping them to fit individual head sizes. While a paper hat may sound extremely perishable and impractical, experience proves that it will give good wear. The twisted crepe paper, which comes in many colors, is bought by the skein all ready to crochet or braid. After crocheting, the hat is stiffened by applying a coat or two of colorite in the same shade as the paper, or by the use of a thin coat of liquid paste.

The third hat is embroidered with yarn and twisted crepe paper on silk.

Purses to match or contrast with hats are made by embroidering in the same way and with the same materials on a canvas background. One of these purses is shown here. These are simple to make, very effective and offer an excellent opportunity for working out individual designs and color schemes.

Yarn flowers for hat trimming or for boutonnieres are also popular, simple to make and very effective.

**Directions and illustrations furnished by the Service Bureau of the Dennison Manufacturing Company, New York City.*

Home Economics and the Manufacturer

The Food Specialist for Special Food

By Mary Isabel Barber

Director of Home Economics, Kellogg Co., Battle Creek, Mich.

THE Kellogg Company is a highly specialized organization. The main output of its factories is cereals—cereals such as were not even dreamed of little more than a quarter of a century ago. Our grandmothers would have been very skeptical if some one had prophecied to them that the iron kettle with its bubbling, sputtering corn meal mush would ever be replaced by a package of ready-to-eat corn flakes. Yet this has happened and the housekeeper of today buys this kind of breakfast food as a matter of course.

The problem of selling prepared breakfast foods has been an educational one from the start. At first people laughed at the products and were rather apologetic about admitting that they liked them. Business men said that such foods would never be a success financially. Housewives—not yet emancipated from their kitchen stoves—felt that a mere man could not possibly cook grain in a factory as well as they could do it at home. But eventually both the business man and his wife changed their opinions.

THE first step in educating the public to the idea of ready-to-eat cereals was word-of-mouth advertising, which was necessarily very limited in scope, but at the same time very sincere and possibly, the strongest method of advertising known. Later newspaper advertising was tried with the result that sales of this new product increased in such a way that the small factory could not supply the demand so advertising was discontinued for a time.

The ready-to-eat cereal business grew rapidly and its youth coincided with the years in which a keener interest in nutrition and a newer vision of right diet were developing. What place did this new food hold in meal planning? This question began to come into the factory office from thoughtful mothers and others interested in feeding problems. To answer them a Home Economics Department was decided upon—a department in charge of a woman who could send analyses of the products to nutritionists, reply to letters from mothers explaining where, when, and how, ready-to-eat cereals could be used to advantage, and interpret food values to the sales force.

The development of a Home Economics Department by the Kellogg Company was in line with the original idea of educating the public to know ready-to-eat cereals, but with the additional thought of giving out accurate nutritional information, practical recipe service, and teaching helps. In this particular company as in other commercial organizations the primary aim of such a department is to increase good will towards the products and indirectly to increase sales.

MANY women who have gone into commercial work have been asked why they gave up teaching. As a matter of fact they are still teaching, sometimes in the classroom or from the demonstration platform, but more often by mail. The mailing list in our case includes teachers (home economics, physical education, kindergarten and general), extension agents, librarians, nurses, doctors, scout executives, camp directors, club officers, cafeteria directors, housewives, students and many others. Nearly all our letters ask for information or for some type of definite service. Often several letters go back and forth between this office and the writer, perhaps formulating a wise club program, possibly endeavoring to interest underweight girls in better food habits, sometimes planning menus or suggesting special diets. The mail service from a Home Economics Department is important. It gives an insight into the food habits of American families, which is different from any other contact. Many women receive practical aid from commercial firms which helps them with a difficult phase of homemaking. A firm has a definite responsibility to the public in its selection of an educational staff.

Another side of mail service is the distribution of pamphlets, charts and recipes. Each piece of material is prepared with a definite group in mind. Cost, layout, arrangement and method of dissemination are considered. When a teacher or housekeeper receives educational advertising material from a firm, she rarely realizes the amount of time and thought which are behind it. Subjects dealing with sources of food material have been approved by geography teachers; nutrition topics, by dietitians; medical references, by doctors. Firms can ill afford to make errors in their statements. Competitors, other manuacturers, specialists in various branches of food production are all ready and waiting to question any thing of which they do not approve, or which they feel is not the whole truth. This is the right attitude and is of value to the firm publishing the material. It is the duty of the Home Economics Director to see that all material bearing the stamp of her department has the approval of "one who knows" before it is sent out.

As an educational department grows there is almost sure to be a loss of the personal touch which is such a pleasure at the beginning of a job. A carefully selected staff of workers can help to maintain a friendly feeling between the office and correspondents. Letters really written in answer to questions are so much more forceful than form letters. It takes interested people with a broad point of view to do this intelligently. The letters primarily give information in reponse to inquiries, but carry some selling message either about additional literature or the products themselves.

ANOTHER phase of the work of the Home Economics Department of the Kellogg Company is outside of the home office and can be called "Commercial Extension." This consists of giving talks and demonstrations, arranging booths, conducting cooking schools, attending conventions of professional and technical groups, which discuss matters relative to the manufactured products, and calling on people with allied interests. These outside contacts keep the workers cognizant of trends of thought, practical projects and investigations, carried on by the educators and research workers.

A sound policy for a director to follow when making schedules for her field staff is to *always* arrange through the person "highest up." Write the national supervisor, if there is one, outlining a plan, and giving the reason for wishing to send a woman into that particular line of work. With this approval gained it is a pleasant task to approach state and city supervisors. When a director or member

(*Continued on page* 95)

Home Economics in Arkansas

By Druzilla Kent

State Supervisor of Home Economics, Little Rock

ARKANSAS is a state where the majority of people own their homes and the majority of these homes are in rural districts. The program of vocational agriculture and home economics which was made possible by the passage of the Smith-Hughes Act met one of the most urgent educational needs of the state, and Arkansas, quick to realize the advantages which would be derived from the program was one of the first states to accept the provisions of the Act.

Since agriculture is the leading occupation in the state, the vocational program was set up to meet the needs of the agricultural sections and every school that accepted aid for vocational agricultural education had to equip and maintain a department of home economics at local expense. This plan placed the vocational program in the rural schools and established such close co-operation between the agricultural and home economics programs that it is impossible to discuss the development of one program without constant reference to the other.

Unit Kitchen, Home Economics Laboratory, Hot Springs, Arkansas

From the very beginning, in these schools, the aim has been to present a practical course in homemaking. Prior to this time home economics had been offered in the larger school systems, but as there were no definite standards as to equipment, time, training of teachers, and subject matter, the majority of schools offered more or less superficial courses in cooking and sewing.

The introduction of the vocational program, providing for full-time supervision of home economics, has made a distinct contribution to the program of general home economics operating in these larger centers by setting up definite minimal essentials for accredited departments, by providing a comprehensive course of study which is used as the basis of instruction in practically all of the schools of the state and by raising the standards in regard to the qualifications of teachers.

The supervisors in charge of the programs have made persistent efforts, since the introduction of the vocational work, to stimulate an interest in community relationships. In the majority of the schools the only point of contact between the community at large and the school is through the departments of vocational agriculture and home economics. These departments are largely responsible for the community fairs, over fifty of which were held last year. The fairs provide for educational programs and the home economics teachers have been active in co-operating with the State Board of Health in conducting Child Health Clinics. Assisted by their advanced students they also give talks and demonstrations on selection and preparation of food for the family. In addition to the work during the fairs, our departments contribute in various ways to community activities, such as the preparation and service of banquets for various groups and organizations, conducting follow-up health programs after clinics have been held, assisting in pre-school round-up and follow-up campaigns and in organizing Home Economics Clubs in rural communities where older women are sometimes given associate memberships. The Home Economics Clubs have become an inherent part of our state program. Practically every school has an enthusiastic club and these clubs are making substantial contributions to various community enterprises.

DRUZILLA KENT

In order to strengthen the appeal of our home economics program throughout the state and to secure the practical application of home economics principles in the communities where our work is presented, we have developed the policy of concentrating our attention each year upon one particular phase of the program, which we term our "major project." Our two most successful major projects were the state-wide "Child Health Project" which was developed during 1926-1927, and the "Better Homes Project" which was conducted during 1927-1928.

In conducting the Child Health project, the home economics departments sponsored health clinics in which all elementary school students were given physical examinations by local physicians who

gave their whole-hearted co-operation. After the children had been examined they were organized into groups—those of normal weight in one group and those below normal weight in another. The advanced students in home economics, under the direction of the teachers, gave these children helpful suggestions in regard to their diet and kept their weight cards.

Many girls were surprised to find that the chief problem in bringing their groups up to normal was not a mere feeding problem, but that the factors of suitable and comfortable clothing were involved, as well as comfortable sleeping quarters, behavior problems of various types, and last, but not least, that many times problems of home management were directly responsible for the fact that the children were unable to maintain standard gains.

The teachers reported unanimously that the chief value of the project was in the reaction of the girls conducting it toward the problems of child care, but the fact that 44 per cent of the children enrolled in the below-normal groups were brought up to normal was no mean contribution to community welfare.

The state-wide project in home improvement, based on units in Home Furnishing and Family and Community Relationships, was carried out last year. The method of carrying out the project was left to the judgment of the various home economics departments and the reports of the project show that the majority of students chose individual projects based on home improvement, while fifty-two home economics departments participated in the National Better Homes Campaign.

During Better Homes Week, programs were sponsored by home economics departments, many keeping open house and displaying the work of the students. Local merchants co-operated by exhibiting model kitchens, labor-saving devices, books for the home, furniture for various rooms, while food products were placed on display by grocerymen. A part of the time during Better Homes Week was given to visiting the homes of the girls and scoring the projects based on home improvement, such as reconditioned bedrooms, yard improvement, repainted furniture, making of furniture, making of furnishings, such as curtains, pillows and table runners. A number of school projects were undertaken, such as reconditioning and furnishing rest rooms, club rooms and lunch rooms, all of which were most attractive and comfortable. Many teachers expressed themselves as to the far-reaching value of this project and are eager to continue the home improvement work next year. Home projects are required of all students in the day school and this plan of centering our attention upon one phase of the program has resulted in the wholesome stimulation of worthwhile home projects

The co-operative plan for promoting agriculture and home economics in the day schools has made it possible to get this program fairly well distributed over the state, despite the limited funds available for home economics.

For the past five years the development of the evening school program has received major emphasis. The state program in home economics has not been in operation long enough to furnish a surplus of trained home economics women in our local committees so it was found impossible to organize an evening school program through local leaders. The program is being developed under an itinerant evening school instructor who spends from two to three weeks in a center, offering short units in these phases of homemaking of particular interest to the group applying for the work.

Manufacturers Whose Booklets or Other Commercial Material Are No Longer Available

Champlain Silk Mills; Wheatena Co.; Pacific Mills; Emile Bernat & Sons Co.; International Acceptance Bank; McCallum Hosiery Co.; W. S. Quimby Co.; Old Bleach Linen Co., Ltd.; D. P. Winne Co., Inc.; Brown, Durrell Co.; Monroe Drug Co.; Kent Costikyan; Manual Arts Press; King Philip Mills; Amoskeag Mfg. Co.

If you have already requested material from any of these manufacturers, this explains the non-receipt.

The itinerant plan has made it possible to reach all sections of the state and greater interest has been manifested in units not based on material production. The enrollment has doubled in the past four years and the size of the classes, together with the per capita cost, has been decreased exactly one-half. The results, in those centers where the classes have been held, have been most gratifying. The grocers in one town reported that the demand for green vegetables was almost doubled after the evening school classes had been in operation and that whole wheat bread was in demand for the first time. In another center, the merchants said that they had replaced several magazines of questionable variety with those of far superior quality and had added several of a rather technical nature regarding homemaking. As a rule, the most popular units are those dealing with problems of home management.

With the exception of a few older schools, our school laboratories are set up to illustrate convenient and desirable types of home equipment. All of our food laboratories have unit kitchens and each kitchen represents a different type of home equipment, ranging from the kitchen where practically all of the equipment is home-made or improvised, to kitchens of moderate-priced equipment, and, in some instances, to kitchens with the most modern type of equipment, including a wide variety of electrical appliances.

These teaching situations have made definite contributions to our communities by illustrating economical and practicable equipment, together with arrangements suitable for home work. After becoming accustomed to the convenient working arrangements in their school kitchens, many girls have worked out as a home project the reorganization of their home kitchens. One project report of this type closed with the following remark: "When I had finished remodeling the kitchen and we had worked for a few days in the room which looked so fresh and attractive with its coat of cream paint, its frill of green checked gingham across the top of the window, framing the lovely view beyond which had always been shut out by a dark window shade, and when we had tested out the convenience of the close grouping of the furniture centered around the new kitchen cabinet, I wondered why mother had been willing, during all these years, to work in a place which was so comfortless and cheerless and in which she had wasted so much energy. The time and cost of arranging the kitchen had been so small and her waste of energy had been so great!" A reaction which demonstrates the value of providing our girls with home economics instruction and furnishes a decided contrast to the reaction of the girl's mother. The mother, with a lack of training, accepted and retained with little change the adult environment as she found it; the daughter wished to experiment and adjust the environment to her own needs.

The more progressive schools are building home economics cottages and these cottages are being used as centers of instruction for the future homemaker, and, at the same time, are illustrating desirable standards and practices for the benefit of the contemporary homemaker, making it possible for her by observation and by participating in short unit courses, to keep in touch with the progress of science and art as related to homemaking.

Our chief objective is to have our homemaking departments serve as centers for the continuous education of the members of each and every community where our work is located.

Suggestions for Teaching the Care of the Well Baby

Lesson III—The Baby's Tray—Daily Routine Procedures

By Lucy Brinkerhoff, M.A., R.N.

THE points on routine procedure are brought into the following discussion from time to time as they are associated with the articles kept on the tray.

The Tray. Two arrangements are used regarding the tray. If the room is small or if the baby must share it with others, it will be convenient to have two small trays, made of light, washable material. One of these will be kept in the baby's room, and will hold the articles used when the diaper is changed. The other contains the articles used during the bath and occasional treatments. It need not be kept in the baby's room.

If space permits, all the articles may be kept on one large tray, which is kept on a low table in a warm, well lighted corner of the nursery, with a low rocker beside it. The mother will find it less fatiguing to sit down with a roomy "lap" for the baby, and all her equipment at hand. In the description, the articles will be discussed as on the larger tray. The other arrangement will be obvious. The following are the articles on the tray.

1. *A jar of swabs.* These are made by wrapping absorbent cotton about the end of a toothpick. The tip of the toothpick should be square and well padded over the end with the cotton. These should be made with freshly scrubbed hands, using new toothpicks and cotton. The jar should be clean and should be kept covered. The swabs are used during the bath for cleansing the crevices about the ear lobe with albolene, and for dropping albolene into the nostrils. A pledget (a small, twisted piece of cotton) may be substituted, if desired.

2. *A jar of sponges made from sterile cotton.* This jar should be boiled before filling, and should be kept covered. The sponges should be made with freshly scrubbed hands. They are made simply by twisting a piece of cotton into a ball with a point for holding. They may be

TEACHING SUGGESTIONS

This topic is the most difficult in the series for presentation. The discussion may be simplified to suit the age of the pupils, but if they can master all the points touched upon, it will be profitable to teach them all. The rather long and detailed lecture may be avoided by postponing the talk on the tray till the bathing demonstration is given, making it a part of this exercise. I do not like the plan, however, because the facts regarding the tray should already be known when the baby is bathed, and should be reviewed and applied as this work is done. They should form the basis of association for the bathing lesson.

A socialized review following the lecture will sometimes aid in fixing the mass of facts in memory. Each student may be allowed to contribute whatever she recalls regarding the respective items. What one does not recall her neighbor will remember. Among them, all the essentials will be reproduced.

A blackboard diagram of the tray with containers outlined upon it, may be used for a memory test. Questions as to what articles are needed in various procedures will serve to bring out remembered facts in their proper relations. These articles may be written in as labels upon the outlined containers.

At best the lesson is burdened with detail, and must depend upon interest carried over from the lessons preceding and following it.

Photo by Paul Parker.

Tray (left to right) back row—glass of clean water for used nipples; covered sterile jar for clean nipples; 16-ounce bottle of boiled drinking water; liquid albolene; swabs in covered jar; boric acid (for occasional use). Middle row—small water bottle; vaseline; thermometer; sterile cotton. Front row—covered soap dish; soap-pincushion; open saucer for albolene; unsterile absorbent cotton, bath thermometer and cotton receiver.

of varied sizes, from that of a walnut to a cherry. They are used when the baby's eyes require washing, and on the rare occasions when the mouth is swabbed.

3. *A hair receiver,* or other container, holding non-sterile, absorbent cotton. This is used for sponging the skin with albolene when the diaper is changed.

4. *A bottle of albolene.* For demonstration, eight ounces will be sufficient. Unless there is a definite need for soap and water during the diaper changing, the albolene (mineral oil), is to be preferred. It is soothing and cleansing, and it renders the skin somewhat "water-proof" against the acid quality sometimes present in the urine. Olive oil serves equally well, but it is more expensive, and being organic, does not keep so well as the mineral oil.

5. *A saucer for albolene.* This may be refilled once a day.

6. *A small pan,* used for warm water if this is required when the diaper is changed. This may be kept elsewhere, if desired.

7. *Clean folded diapers.* These may be kept elsewhere if desired.

8. *A mason jar or sixteen ounce bottle containing boiled drinking water.* The water is best given tepid, about midway between feedings. At first it may be given from a bottle, but by the end of the tenth month the habit of drinking from a cup should be established. The present slogan for water drinking is, "Offer, but do not urge." In hot weather, however, the baby should be urged. The more he takes the better he will withstand the heat, as a rule. The water for drinking, as well as the mason jar, should be boiled freshly every day.

9. *A small water-bottle,* corked. This should be boiled every day.

10. *A covered jar, containing sterilized nipples* for water-drinking. A fresh nipple should be used for each drink. The nipple should drop the water like the ticking of a clock. To make a hole larger, heat a small darning needle red hot and pierce the nipple. If the fluid comes out in a steady stream the nipple should not be used.

Note. If the baby drinks plenty of water, and never puts anything dirty into the mouth, he needs no formal routine mouthcleansing.

1. *A drinking glass filled with clean cool water for receiving the used nipples* —until these can be cleansed and boiled. Once a day the nipples should be turned inside out, scrubbed and rinsed, re-turned, scrubbed and rinsed, and then boiled in a small pan for three minutes. They should be drained from the boiling water and turned into the freshly boiled, dry sterile jar used for clean nipples.

12. *A small cake of pure soap for a pin cushion.* The soap keeps the pin points clean and lubricates them so that they slip smoothly through the cloth.

13. *A cake of Castile soap,* or a jar or bottle of Castile soap fluid, made by melting the soap and diluting it with water. If the cake is used, it should be kept in a covered dish.

14. *A rectal thermometer, kept in a case except during illness.* Before returning it to the case it should be scrubbed in cold soapsuds, rinsed and dried. During illness, when it is used regularly, it will be kept in a disinfectant, preferably alcohol.

15. *A covered box or jar of boracic acid crystals.* Make a fresh solution every time the wash is needed. For a 4 per cent solution add two teaspoonfuls of the crystals to a glass of boiling water. Allow this to cool. For a sore mouth use the solution full strength, for the eyes it is usually diluted to half strength.

16. *A bath thermometer.* This is more accurate than the wrist or elbow. The temperature of the bath varies from 100 degrees for the newborn babe to well below 98 degrees for the child in his second year. Many physicians recommend it as low as 90 degrees for strong children a year old or more.

17. *A cotton-receiver made from a grocer's bag.* The used cotton may be put into this and at the end of the day the bag may be burned.

An Interesting Exhibit Project

By Florence E. Jennings

Highland Park School, Richmond, Va.

THE georgraphy course of study in the 4-H grade in our school system gives us the study of the entire United States. As we know, each of our groups of states is noted for some particular industry, according to the climate and natural resources. Our Industrial Arts course calls for the study of foods, clothing, shelter, utensils, tools and machinery. These, too, are taken from the United States. I am sure that all will agree that the most lasting impressions made upon us are through the eye, so to make the course as interesting, realistic and helpful as possible to the pupils, we arranged an exhibit on each of the groups of states.

We first studied the Middle Atlantic States, which is our home group. The children, of course, being familiar with this group, find it more interesting to begin at home. The class was divided into groups, a group or committee for each state. One child from each group was chosen for the chairman, and this child was held responsible for the work of the group. They then made up reports on their states, the information coming from their Georgraphy Text and reference books in the class library. Other very valuable information and pictures were received from the Chambers of Commerce of the largest cities of our groups. Also through the Chambers of Commerce we received the names of the largest manufacturers, and the children wrote letters to these explaining they were planning an exhibit of the groups and asked for samples of their products. The manufacturers have been exceedingly nice about helping us, and some lovely exhibits have been gotten through them.

I would like to add that very valuable exhibits were secured through the help of your magazine, and will also take this opportunity to thank you, and your magazine, for the help received. The exhibits spoken of above were not the only ones the class worked out.

They worked out a typical Virginia farm on the sand table, using tobacco as the leading crop. A coal mine was worked out on another sand table, this representing another form of industry in this group. Then the three modes of travel of New York City were worked out very attractively by some members of the class. We also took up the study of one of our newest industries, the history, manufacture and uses of "Rayon." A very splendid exhibit was worked up on this.

In studying rayon we found that we needed some cotton in one of the processes of manufacture of this material, so we then decided to go down into the Southern States and there get all the information we could on the cultivation of cotton. This was carried out as our first group, and here the class worked out an "Old Southern Cotton Plantation." Then a small reproduction of an oil well was worked out. Then we followed some of the cotton to the New England States, where it is manufactured into cloth. In studying the New England group we took up their most important industry, "Fishing," and worked out on the sand table a "Fishing Port."

I hope it has been understood that each section of the state has been worked out exactly as I explained in the beginning of the article.

The Central and Western States will be explained in an article to follow at a later date, as they have not been completed.

Vocational Homemaking Education in California

By Maude I. Murchie

Chief, Bureau of Homemaking Education, State Department of Education

HOMEMAKING education is recognized as a part of the high school curriculum in practically every high school of the state. There are only a few small schools that do not offer some type of homemaking instruction.

Last year this subject, as well as all other school subjects of high school grade, was given recognition by the State Board of Education as meeting the requirement of a second major for high school graduation. Heretofore the second major could be selected only from the five academic subjects usually listed for that purpose. Therefore, students frequently were unable to elect subjects not listed for major credit as freely as they desired. The elasticity in the program as now provided should enable the subject to develop in accordance with the demands. Administrators and teachers must first recognize homemaking education as basic in the education of girls and women; and also as essential in preparing boys and men for sane living.

There has been a general acceptance in the state, in the state office is well as in the public school system, of the term "Homemaking"; a broadened conception of the content to include preparation for an increasing number of responsibilities and duties of the home, and of the major as three years of instruction covering the essentials of t field of homemaking, rather than one or two phases of the vocation.

These standards have been constantly promoted through the vocational program.

There is an increasing interest on the part of rural districts to enrich their programs and also to qualify under the vocational program if possible.

Of the forty-one all-day home economics classes for 1927-28, enrolling 894 pupils, fifteen are in distinctly rural comunities.

The allowance for the support of a vocational program is so limited that its effectiveness must be measured in terms of general influence and development in educational ideals in this field throughout the state.

All-Day Classes

These classes are organized for girls fourteen years of age or over in Junior or Senior High Schools. The course may be one or two years in length and include preparation in all the essential duties and responsibilities of the home, organized in accordance with the interests and capacities of the girls of the class. In addition to the half-day homemaking instruction, there is included instruction in English, Citizenship, Mathematics, Music, Home Art and Science. The course is particularly desirable for girls who will not complete a high school education, or for girls who will marry at an early age.

MAUDE I. MURCHIE

The claims for all-day instruction, 1927-28, amounted to $27,720.00 and the allowance was $21,509.86, thus making it necessary to prorate the claims at $.776 on the dollar. The forty-one classes were organized in nineteen districts and distributed in twenty-four centers. Sixty-eight different teachers participated in the homemaking instruction. These classes are used for the purpose of promoting better standards of work. The growth of the programs is indicated in the table which is shown on the following page.

Part-Time Extension Classes for Adults

These classes are held for women for a minimum of four hours per week as special day classes, and instruction may be provided in any phase of homemaking, including child care and child training, home art, nutrition, business law and home accounting, as well as in food preparation and service, home sewing and the study of dress. These classes first introduced the opportunity for women to secure educational service from the high schools in the day time rather than at night. Most women not engaged in gainful employment can attend class most conveniently in the day time. This type of instruction has developed with the usual yearly gain. The figures submitted in the report show a decrease due to the necessity of cities organizing classes, on account of the crowded housing conditions, for less than the minimum required of four hours per week. Such classes were denied reimbursement. (See the table which is shown on page 78.)

The part-time extension classes for 1927-28 were organized in twenty-two cities with 347 classes distributed in 201 centers. Ninety different teachers gave instructional service to the extent of 54 teacher units of 1,080 hours each for a school year of 36 weeks. Vocational funds are not used here to maintain homemaking education in classes where the maximum of the class session falls after six p.m.

A varied type of program for the women is difficult to promote because a large number of these teachers are of trade origin and are limited in their certification to dressmaking or millinery. The amount of instruction in millinery should otherwise begin to show a considerable decrease by this time for the homemaking instruction should reflect the buying habits of the consumer. A study of wo-

Enrollment by Subjects—Part-Time Extension Classes for Women:

Approved Classes	1926-27	1927-28	*Disapproved Classes* 1927-28
Dressmaking	5903	6595	698
Millinery	4945	4997	930
Dressmaking and millinery	1920	1154	
Tailoring	282	358	208
Business Law	93	126	
Home Art	368	312	187
Foods	246	366	
Short Units	200	100	
Home Nursing	392		692
Totals	14,349	14,008	2,715

All-Day Classes

Year	*Number*	*Enrollment*	*Claim*	*Allowance*
1926-27	33	710	$22,680.00	$19,141.46
1927-28	41	894	$27,720.00	$21,509.86

Part-Time Extension Classes for Women

Year	*Enrollment*	*Claim*	*Reimbursement*	*Claim prorated*
1926-27	14,349	$38,863.34	$32,800.20	.84 plus
1927-28	14,008	$39,217.96	$30,431.80	.77 plus

Enrollment of Experienced Homemakers in Vocational Teacher Training Courses:

	1926-27	1927-28
State College, Chico	11	9
State College, Jan Jose	16	26
State University, Los Angeles	30	26
Total	57	61

men's headgear on the streets and in the shops indicates the need for an increased study of design in the selection of hats rather than a need for an increased attention to constructive processes. In the last few years, the tendency in the trade has been to discontinue the construction shops, maintaining only an adjusting force.

Vocational allowances will have to be adjusted for the maintenance of classes in accordance with a program of relative values based on the importance of such to the occupation of homemaking.

By providing the clothing of the family the housewife can make a very substantial contribution to the family budget. Many having had the training enter the occupation of dressmaking as wage earners.

These teachers, however, are for the most part skilled in their trades and readily gain the confidence of the students. Their shortages lie in professional skill as teachers and in their grasp of the related content from the homemaking standpoint. Many of them realizing these deficiencies attempt to build up their training through summer session attendance or extension service.

Vocational Teacher Training

Since the organization of the vocational program in 1917-18, women who are experienced homemakers have been trained as home economics teachers. A special effort has been made to adjust their training to their homemaking experience. Each year there has been enrolled from fifty to sixty students in the institutions cooperating with the state departments in this vocational program. They have proven themselves a definite asset both to the public school system and to the teacher-training institutions as they bring such experience and maturity of judgment to the institution as no institution can develop during a training procedure.

In connection with the program of training experienced homemakers as teachers of home economics, the vocational program was modified, in 1924, to extend the teacher training facilities of the institutions mentioned in the table above to include definite preparation of teachers of adult and part-time education through the project of child care and training.

In each instruction there was the inclusion of instruction in adult and part-time education, also the organization of child training instruction, either in their special courses dealing with home economics or in separate courses.

In San Jose State Teachers College a child laboratory project and a parent training project were organized in the Home Economics Department. Last year, in connection with these projects, a home management project was started and a day-apartment was equipped to provide additional training. These projects have been maintained as part of the summer session programs of the institution during the past four years. Practice teaching was obtained also in the adult and part-time classes of the city school system. This year the vocational instructor is in charge of an evening parent education group of the City School Department, which provides splendid cooperative facilities for the work in the college. These projects have been used to bring about a re-focusing of the content of the regular courses of the special department to provide emphasis in these aspects.

In addition, the summer session vocational program introduced home art courses emphasizing the teaching of house planning, decoration, furnishing, and dress design from the standpoint of the consumer. The project method was used widely by using the homes of the community for teaching. Miss Louise Wood organized this program, as vocational teacher-trainer in San Jose, and has been succeeded this year by Mrs. Margaret Coyle.

At Chico State Teachers College and at the University of California, Los Angeles, the special methods courses were modified, contacts were made for practice teaching in adult groups, and child care and training content was added to the curriculum.

At Chico, before the fire eliminated the room for such, an adult class was maintained in the Homemaking Department for practice teaching purposes; and a clinic of the community was used to provide additional adult and child training facilities. In the methods courses, curriculum material has been prepared and circulated to the teachers from the state office. Mrs. Gail Burfield Paulson is in charge of this program at Chico.

In the University of California at Los Angeles, practice teaching was provided at city high schools and adult groups in the college were used for practice teaching purposes. There is a splendid group of experienced homemakers registered in this institution. Miss Margaret Jones is the vocational instructor in Los Angeles.

This year a cooperative position was established between the state office and the Chaffey Union High School and Junior College to provide opportunity for the preparation of curriculum material for various schools and classes in home economics and for the promotion of upgrading processes for the teachers in service. One-half time is given to local service in the Chaffey Union High School. Miss Dorothy Shank is the instructor in charge of this program and is now engaged in the study and organization of homemaking instruction for general continuation groups, between the ages of 16 and 18. These girls are obliged to attend school for 4 hours per week under the requirements of the part-time law. Miss Shank is instructing one of these groups that she may put theory into practice.

These facilities now organized are basic in value in teacher training, and are departures which should provide definite opportunities for decided advances in modern curriculum construction and in methods of teaching. They are organized as projects rather than as theoretical situations and thus insure definite contributions of a unique character when more fully appreciated and developed.

EDITOR'S PAGE

NOW that you have all had time to examine and digest our new cover and our new name, how do you like them? We should be glad to know, even if your comment be adverse, for we have already had so many complimentary things said about both that we are in danger of developing a Cheshire-cat grin!

I DOUBT whether there is one who reads these pages who is not more or less familiar with the products of The Kellogg Company. Many of you as well know Mary I. Barber, who is in charge of the Home Economics Department of this Company, and I am sure you will all be interested in her story telling of how their educational program has been established. This article offers good food for thought for many of the new graduates who will be leaving schools and colleges in June, and who have an eye on getting into home economics work.

ARE you sometimes puzzled in getting nutrition facts across to very small children? Miss Flannery, who teaches in one of the New York schools, has been especially successful in accomplishing just this. Her story of Mr. Milk may help you. Don't you think the drawings are cute, and can't you just see a whole group of first grade children making believe they are milk bottles of milk and jumping on "the jolly milk train" as it comes along?

CHILD Development, Parental Education, Family Relationships are all comparatively new words in home economics work, but words that are occupying an increasing amount of attention and interest for all grades. The *American Home Economics Bulletin* for January gives an excellent idea of the special program the Association is undertaking in child development and parental education. The importance of teaching high school boys and girls some of the fundamentals for successful marriage, parenthood and homemaking is gaining considerable headway in our educational scheme, and an increasing amount of recognition from other sources as well. The February issue of *Current History* says, in an article giving the results of a study carried on by a national committee on Marriage and the Home under the direction of the Federal Council of Churches, "Closely related to the financial requirements and adjustments of happy marriages is training of the prospective wife, and to an extent, of the husband also, in home economics . . . It is astonishing how many girls enter blithely upon the serious responsibilities of homemaking with the most meager and superficial knowledge of budgeting, economical buying, cooking and housekeeping. Fortunately such lack of training can be made good in individual cases, and the new science of Home Economics, which has become part of the curricula of colleges and high schools and is receiving the attention of the national organizations of women, is approaching the problem in a way which promises much for the future of the home."

TEACHERS who are working up assembly programs for their home economics classes will no doubt be glad of the little play published this month, and that is called "How It All Began." When we first read this, we were frankly a little puzzled as to the seemingly mechanical difficulties involved in carrying it out. So we wrote to Miss Sunderland, and asked her how it was done. Her note in the beginning of the article, tells the story.

WE hope that food classes, especially in the junior high school, have been able to make use of the marketing suggestions contained in Mr. Brown's series of articles on seasonable foods. These ought to be suggestive not only for working out meals, but for individual problems dealing with market supplies, food transportation, etc.

WE are again this month telling the story of how home economics education, and home economics programs are being developed in various parts of the country. A while back, you may remember, we spoke of the advantage of enrolling in what we called our "rocking chair travel course," and spoke of some of the places to which we would take you. This month our travels carry us to four different states, and we shall have to go fast to cover them. Josephine McMullen leads us through Iowa in a survey of its elementary homemaking education. Iowa is making good progress along this line, as I am sure you will agree after reading the article. For instance, the unit of food study for eighth grade girls lists nineteen specific objectives. Quite a far cry from the original conception of simply acquiring skill in cooking as the goal of a course in domestic science!

Mrs. Wood tells us of the very interesting plan in Arizona for training teachers for evening school classes in home economics. This is part of the program for developing adult eductaion in home economics and is being successfully carried out. We hope that Mrs. Wood will tell us more of this work in later issues.

From Arizona we jump to California and go up and down the state with Miss Murchie in a study of the vocational homemaking education there.

Our next and last stop, so far as this month is concerned, is in Arkansas. Here Miss Kent tells us most effectively of the splendid cooperative plan that has been developed between the agricultural and home economics programs. Homemaking in Arkansas is essentially a practical course especially in those schools that have benefited by the passage of the Smith-Hughes Act.

There is enough difference in the subject matter of all these articles to make each interesting in itself, as well as in comparison with the others.

The Editor.

The Story of Mayonnaise

Industrial and Sanitation Problems

By Albert K. Epstein

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THE mayonnaise industry is one of the youngest of the food industries in the United States. It has been estimated by the Mayonnaise Products Manufacturers Association of America that about seventy million dollars worth of mayonnaise products were produced in the United States during the year 1927.

In view of the rapid growth of the mayonnaise industry, many new problems have arisen from various angles. There are problems pertaining to raw materials, machinery, methods of packing and distribution, etc. It is sufficient to say that the mayonnaise industry comprises all the scientific and technical problems which confront the dairy industry, egg breaking plants, canning and pickling factories, besides problems which are specific to the mayonnaise products.

Mayonnaise is an emulsion consisting of oil dispersed in an aqueous medium, with an emulsifying agent, which stabilizes the emulsion. From the standpoint of the oil content of commercial mayonnaise, the product may be divided into three classes: To the first class belong mayonnaise products which are of a heavy, butter-like consistency. An analysis of ten different representative commercial brands bought on the open market showed that they contain from 77 to 83% of oil, from 10 to 15% total moisture, from .3 to .5% of acid as acetic acid and from 7 to 11% of commercial egg yolk.

Among the raw materials used in the manufacture of commercial mayonnaise, oil is of great importance. Liquid vegetable oils such as winter pressed cotton seed oil or corn oil are used. When the price of oil is high, imported edible sesame oil is also used. Within recent date, a product has appeared on the market containing some butter fat. The acid ingredients may be in the form of vingear such as distilled vinegar, malt vinegar, taragon vinegar, cider vinegar or in the form of lemon juice, citric acid, lactic acid, tartaric acid or a combination of various vinegars and edible organic acids.

Most manufacturers are using egg yolks but there are very few manufacturers who are using whole eggs. Frozen yolks of all sorts are being used, including those usually used by bakers and also a number of egg products prepared especially for the mayonnaise industry. Powdered or flake yolks are not used in mayonnaise. Besides these essential ingredients, a number of others are used, such as spices and condiments like salt, sugar, paprika, white pepper, mustard, etc.

Recently a number of vegetable mayonnaise products have appeared on the market. These products consist of a mixture of mayonnaise with vegetables such as pickle relish, pimentos, olives, various types of tomato products, cauliflower, onions and nuts.

It is very essential that the oil used in mayonnaise should be of very good quality; in fact, it is necessary that the oil used in mayonnaise should be better than the oil used for any other food product. There isn't a fatty food product on the market in which the oil is subjected to so many unfavorable conditions which will tend to turn it rancid as in mayonnaise. It is known that moisture, light, and heat are factors which contribute to rancidity. Other fatty food compounds are usually at 40°F. A baked product is consumed in a relatively short period of time after it is manufactured or it will become stale. It is for this reason that edible oils have been refined heretofore to satisfy the conditions to which they were subjected.

HOWEVER, in mayonnaise, oil is exposed to the most unfavorable conditions. A large amount of air is generally incorporated with the emulsion. It is usually kept at ordinary room temperature for as long as three months from date of manufacture until it reaches the housewife. It is, therefore, necessary to take more care in selecting oil for mayonnaise than for any other food product. Credit must be given to the Mayonnaise Products Manufacturing Association of America, who are demanding a very high grade of oil from the refiners. A tentative standard adopted by the Association calls for a vegetable oil with a free fatty acid content not more than .05% as oleic acid and it should respond negatively to the Kreis test and be free from foreign odor and flavor.(1)

In the factory, the oil must be kept in a cool place so it will not turn rancid or potentially rancid. It has been shown that a fat may not be rancid to taste and flavor but may be in a state of incipient rancidity or in a potentially rancid condition in that its induction period is decreased and it will take a relatively shorter period of time until the fat becomes rancid to a point where it is detected by taste and flavor.(2)

A rancid mayonnaise is not palatable nor appetizing. It has been shown that oxidation processes occurring in the development of rancidity destroy vitamins A and E.(3), (4), (5), (6), (7). In other words, a rancid oil in mayonnaise will reduce the biologic food accessories derived from the yolk and other ingredients such as corn oil.(9)

EGGS are very essential ingredients in the manufacture of mayonnaise. The egg material is the emulsifying agent, which stabilizes the emulsion. Care must be taken that the egg material used in mayonnaise should be of excellent quality. It must be of a much better grade than eggs used by bakers. For baking purposes, many food authorities allow a product with as high as three to five million bacteria per gram. However, for mayonnaise purposes, such a product is unsuitable.

Dried yolks are not used by mayonnaise manufacturers, for the yolk oil becomes rancid in the dried product and it will have a tendency not only to reduce the biologic value of the mayonnaise from the vitamin standpoint,(7) but induce rancidity in the mayonnaise itself.

Care must be taken when the eggs are brought to the establishment that they are kept in the proper way so that they will not be spoiled before entering into the mayonnaise product.

Within recent years, a number of special frozen egg products have been prepared to meet the requirements of the mayonnaise industry. Such preparations are made from selected, fresh eggs, separated in a sanitary plant under sanitary conditions and treated by special processes so as to prevent the multiplication of micro-organisms during the time the product is allowed to thaw out in the mayonnaise plant, and also to enhance the emulsifying properties of the yolk.

Vinegar should be kept in closed containers and out of contact with metals such as iron and copper, and pickle relish

must be kept covered as vinegar flies will accumulate.

Mustard should be stored in a dry place, otherwise it will become spoiled, and a decomposition of the labile sulphur compounds will take place, producing offensive, sulphur containing decomposition products.

The vegetables used in connection with mayonnaise must be properly pickled and processed; otherwise, the mixture of mayonnaise and vegetables will ferment. As a matter of fact, a considerable amount of spoilage is encountered in vegetable mayonnaise products due to the improper handling of the vegetables such as pimentos, chopped pickles and tomato products.

The olives used in connection with mayonnaise products must be of very good quality. Care must be taken that the olives should be properly brined and are not exposed to the air as a scum will be formed and the olives eventually will become discolored.

The premises of a mayonnaise factory must be suitable for a product of a perishable nature. It is advisable to have walls which can be easily cleaned. Floors should be made of tile and provided with drains. The factory should be equipped with hot and cold water and steam. The utensils must be washed every single day with soap and water and thoroughly rinsed, otherwise the yolk material will coagulate and become putrid and contaminate subsequent batches.(28)

THE bowls, the homogenizer and other equipment with which the mayonnaise comes in contact must be tinned from time to time as the mayonnaise contains a considerable amount of acid and therefore the machinery used will require frequent retinning. It is not advisable to introduce heavy metals such as copper or iron into the finished product because some of these ingredients, besides having a deleterious effect upon health, also act as catalysts,(25), (29), inducing oxidation of the oil, turning the product rancid and reducing the potency of the vitamins.

The large mayonnaise manufacturer has in one way or another succeeded in solving some of the problems; otherwise, the industry could not have grown to its present volume. The housewife will not buy a product which is not palatable, and the development of this industry proves that a good, palatable product is placed on the market.

The problem with which the health officer is confronted is the problem of the small manufacturer,(27) who is not aware of the difficulties involved in handling a perishable product. This is not only true with reference to mayonnaise but also in other food industries, such as the dairy, preserving and ice cream industries.

Mayonnaise is not only a condiment, but also a food. In view of the fact that it contains about 80% of oil, it is equivalent in its calorific value to similar fatty compounds such as butter. Besides, it contains a fair amount of vitamins derived from the yolk material. It has been shown that yolk material is one of the richest sources of vitamin D; it also contains vitamin A and a fair quantity of vitamin B.(9, (10), (11), (12), (13), (14), (15), (16), (17), (18), (19).

Mayonnaise containing lemon juice is expected to contain an appreciable quantity of vitamin C. From the yolk material, mayonnaise derives a certain amount of a very highly nutritious protein;(20), also, calcium,(21), (22), and iron,(23), (24), and other inorganic salts.

Mayonnaise is rarely consumed by itself; almost always in connection with salads such as lettuce, tomatoes and other vegetables. The consumption of mayonnaise, therefore, enhances a larger consumption of vegetables, rich in minerals and the necessary vitmains.

THE vegetable oils such as cotton seed, corn and sesame oil have the same coefficient of digestibility as olive oil and butter oil. However, since mayonnaise is an emulsion, it is for this reason that it might be expected to have a greater rate of digestibility than a similar quantity of liquid oil such as cotton seed oil or olive oil. Vitro experiments reported by Mr. B. R. Harris,(26 show that the fat in mayonnaise is more easily attacked by the pancreatic juice than a similar quantity of oil in view of the fact that a larger surface of the oil globules is exposed to the digestive juice in the form of mayonnaise than in the case when ordinary, non-emulsified oil is used under similar conditions.

The oil, before it is digested in the pancreas, must first become emulsified with the bile and this emulsification of the oil is performed by the manufacturer of mayonnaise in his factory. Harris has also demonstrated that if mayonnaise is consumed with a protein food, the protein itself is more easily digested than when the protein material, such as meat, is consumed with oil. This is apparently due to the fact that when oil coats the meat particles, it prevents the digestive juices from attacking the protein, while in the case of mayonnaise, the digestive juices mix very readily with the mayonnaise. In mayonnaise, water is the continuous phase and is easily diluted with aqueous solution of gastric juice, thus allowing it to come in contact with the protein.

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Health Beliefs and Buying Habits

By Caroline B. Sherman

United States Department of Agriculture

AFTER studying the farm and the farmer for many decades, and the markets and the middlemen for two decades, some agricultural leaders are now turning their attention to the homes and the housekeeper-customers. There are those who question the worth of knowing what the customers think so long as customers are so often on the wrong track, but, although what they think may not be at all true, if these beliefs or ideas affect their buying and their ordering of certain products, it is well for those who supply these products to know about these beliefs—be they truths or fallacies. Detection and correction of possible fallacies would be another story.

These consumer-demand studies have largely been conducted under the direction or with the advice of the United States Department of Agriculture, in co-operation with state agencies, large distributors' organizations, and some retail agencies. This work is based on the theory that since we are now rather adequately informed about supply, it is time that we inform ourselves more fully about demand. The studies are designed to bring out factors and characteristics that affect and control buying habits of families in regard to a given product. This inevitably means getting at what housewives and their families think about certain food products—even to notions and prejudices.

The work is carried on through questionnaire surveys gathered by trained field workers. In a house-to-house canvass they secure information from the housewives regarding their buying and using experience in connection with the commodity studied. The interviewed housewives are carefully selected to form a fair representation of the city studied. Wage groups, racial groups, sections of the city, are among the factors considered in making the list of those to be visited. Later these questionnaries form the basis for statistical analyses. Average consumption, methods of buying, family preferences, use of substitutes, and reasons for buying are analyzed and are checked against the statistics of the distribution of the products in the given locality, to determine the importance of various influences.

Beliefs of consumers regarding the healthful qualities of given commodities, and the effect of these beliefs on their buying, ordering, and table habits are here collected and presented, together, for the first time. Results from certain other phases of the studies which border closely on questions of health are included.

So important a food is bread considered by housewives that 94 per cent of 2,588 houswives in 15 cities of Pennsylvania stated that price had no effect upon the amount of bread they used, and only two per cent said the price at which bread is sold limits their consumption. Seasons do not have a marked influence upon the quantity consumed, as four-fifths of the housewives use the same quantity of bread throughout the year. It is eaten at every meal by 86 per cent of all families and is consumed at least once daily in 98 per cent of these households.

In round numbers, the average per capita consumption of bread is 2½ loaves per week and the average family of about five persons consumes 12 loaves of bread each week. White bread constitutes four-fifths of the total bread consumed among these families, and it is the most important kind of bread as measured by quantity used. Rye bread is second in importance, whole wheat bread is third, raisin bread fourth and graham bread ranks fifth. Pan bread is the most preferred style of loaf, vienna bread is second, twin loaves third, square sandwich bread fourth and the split-top loaf is fifth in preference. Many more housewives prefer wrapped bread with a soft crust and of coarse texture. Soft rolls are preferred by more consumers than hard rolls.

SEVEN per cent of the families reported that their consumption of bread had decreased during the last two years, and six and one-half per cent of those who reported a decrease in consumption said that it had decreased for health reasons. In these instances consumers were on a diet for diabetes or for other troubles or other reasons. The majority of families said they ate bread merely because they liked it but more than half stated that they used it for its food value. The third important reason given by housewives for using bread was because of habit or custom and the fourth in importance was "for health." One and one-half per cent of those interviewed ate bread because the doctor prescribed it. This reason was named chiefly by users of whole wheat bread.

One or more adults in 4.5 per cent of all families did not eat bread because they considered it too fattening, or did not like it, or the doctor forbade it. The Jewish families had the largest proportion of non-bread consumers of the nine groups questioned. In 16 per cent of the Jewish families there were one or more adults who did not eat bread.

Breakfast cereals, potatoes, coffee cake,

sweet rolls, griddle cakes and crackers, in the order named, were the most important substitute foods for bread.

Meat has been studied in 16 cities, well distributed throughout the United States; 4,466 housewives were interviewed.

In the American white group, over five per cent of the total number of persons did not eat meat. Almost two per cent of the men and over three per cent of the women did not eat meat. There was noted a tendency for more men and fewer women to eat meat as the standard of living of the households became higher. In the colored and foreign groups the relative numbers of persons not eating meat were less than in the American white group. Health and diet reasons were stated by almost three-fourths of the adults of the American white group who said that they did not eat meat. For this group, the reason most frequently assigned to those not eating meat was that they excluded it from their diet, either because of doctors' orders or because of personal opinions regarding its healthfulness. Of the 196 adults answering the question, 73 per cent gave dietary reasons. The next most important reason numerically was that of not caring for meat. This reply group included the vegetarians who were found in the households visited.

Of those replying that too much meat was consumed in their households, and assigning reasons for their replies (with the exception of one group) 80 to 90 per cent of the total number gave reasons indicating that they believed that the quantities consumed were too large to be healthful. The exception noted was the Scandinavian group, in which 67 per cent of the total replies indicated that too much meat was consumed to be healthful.

The number of those replying that they believed that too little meat was consumed in their households was small and the number of those assigning reasons for this answer was still smaller. But there seemed to be evident a tendency for the proportion of those replying "not enough" to decrease as the income or standard of living of the group became better. The few replies in which reasons were stated were indicative of the opinion that the cost of meat was beyond the means of the family. These reasons were given primarily by housewives of the poor classes of the American white and colored groups, and by those of the Italian group.

Milk consumption in Philadelphia was studied by means of 400 families. Apparently most of the members of these families drink milk because they like it rather than because they think it is good for them or because they consider it a food which can be used to good advantage as a substitute for other and more expensive foods. "Like it" constiuted 55 per cent of the reasons for drinking milk, whereas health and food value made up 27 per cent of the reasons. The remainder drank it because they were required either by their parents or by the doctor.

The answer "do not need it" (constituting 11 per cent of the reasons for not drinking milk) implies that, by some, milk is considered as a sort of medicine to be taken only in case of illness or poor health. Slightly over three per cent replied that more milk would be consumed in case of sickness. Thirteen per cent did not drink milk because it was considered fat producing, and slightly over five per cent did not drink it because it "did not agree with them."

Answers from 141 questionnaires indicated that fresh vegetables and meat are considered the foods of greatest importance among these families, with bread next and milk fourth.

Apples formed the commodity studied by means of 3,000 families in New York City. Over half of these families gave health as the chief reason for eating apples. This reply from Scandinavian and German groups went as high as 60 per cent. The slogan "An apple a day keeps the doctor away" was quoted by 150 in answer to this question. The varied healthful qualities attributed to apples are seen in such answers as "They have healthful juices," "Aid digestion," "Supply iron," "Purify the blood," "Acid protects the teeth," "Reduce necessity for taking cathartics," "Contain valuable minerals."

In a preliminary and rather limited study of raisins, so many housewives mentioned the health appeal, particularly the iron content, that the raisin industry returned to that appeal in their advertising. It may very likely be this health idea that has helped to make raisins a year-round instead of a holiday food. Cranberries are slowly becoming a fruit for several months of the year, but the industry still suffers from being associated too closely with the holiday season. However, in a canvass of 221 families in Washington, D. C., several mentioned health as a reason for serving them, believing that the acidity of the cranberries aided in the digestion of rich meats. But this "appeal" and that of attractive color taken together, ranked far below the number of times that flavor was mentioned.

Thus we see that in the case of no commodity studied, not even in the case of a holiday "appetizer," did the families as a whole entirely disregard the question of health. Their ideas regarding the healthfulness of certain foods may be erroneous, but these ideas are evidently effective when it comes to buying and serving, in a varying but always significant proportion of families.

Home Economics Courses Attaining Recognition

THE United States Bureau of Education has recently issued results of a survey made to show to what extent home economics work is allowed for college entrance credit in the various states. This showed that forty-three of the state universities which admit women allow credit for work in home economics by high school pupils; twelve privately endowed higher institutions in eight different states make the same allowance. Of local school authorities in seventy-five cities that reported on the subject, forty-nine state that the same credit, hour for hour, is given for home economics as for any other high school subject. Reports from seventy-two cities showed that in thirty of these, home economics is a required subject for high school girls. Of the entire enrollment of high school girls in sixty-seven representative cities in northern, southern and western states the average precentages taking home economics courses during the first semester of the school year 1927-28 were 29.7, 36.1, and 36.8 respectively. These show an increase in the enrollment in home economics in all sections. The length of the courses given varied considerably, as information obtained showed that sixty-nine cities offer four years instruction; seven cities give three years, two of them two and one-half years; ten cities two years, and three cities one year. High schools in twenty-one cities offered different combinations of courses in home economics subjects.

The kind of instruction that is given in home economics and the methods employed in teaching is a matter that is decided by the various schools. It is, however, generally agreed, though not always observed, that there should be very close cooperation between the home and the school in teaching homemaking. The girl's home should be the laboratory in which she should work, and her own family problems should form the basis for her course of study. If this could be done, a girl would feel that she was receiving practical education in this subject, and her interest will be much more aroused than when dealing with purely theoretical problems. The home economics teacher, more than any other, has the opportunity of instilling in every girl a love for home, a respect for family life, ideals of loyalty in family relationships, and a feeling of the sacredness of parenthood. When this is the aim of every home economics teacher, then shall the subject attain its real value as a major and important subject in education.

Developing Adult Education in Home Economics in Arizona

By Mildred Weigley Wood
State Supervisor, Home Economics Education

ADULT education programs in Home Economics do not spring up all ready grown and ready to bear fruit. They have to be developed and this development is often a slow process and one requiring much patience especially in the beginning. As we have seen it in Arizona there are four essentials to a good program:

I. Well trained teachers.

II. A vision of what present-day homemakers need and want.

III. Good publicity plans.

IV. Good follow-up work to promote further units.

While it is true that you must know what you want to teach before you can teach it, it appears that *training teachers* for adult work has to come first and the program based in part upon what these teachers are qualified to teach. One could set up the most desirable series of short unit courses in homemaking and have each and every one fail because there were not qualified teachers to teach them. Therefore, it seems as though the plan for recruiting and training teachers as a first step in developing a good program is of primary interest.

We all know that there is very little written in magazines or books as yet to guide one to a sound plan of education for evening school work. In Arizona we had no precedent to go by and we had not been in close touch with those states which in recent years had been doing effective pieces of teacher-training for this phase of education. Therefore, we cast about for what would seem to be a satisfactory and sound method of training. We naturally turned to experience in school teachers and said to ourselves, "What are the requisites in a curricula of good training for day school teachers?" The answer is that all teacher training institutions show a special methods course, some observation of teaching, and some supervised teaching. "Why not the same plan for training evening school teachers?" we asked ourselves and with this plan in mind we organized our work. But before we could put into operation this plan of education we had to secure the prospective teachers.

Recruiting teachers for evening school work is, in our estimation, a hand picking process. Every good home economics teacher of day school work is not necessarily a good teacher of evening school work nor does her time and strength often permit her to carry more than a little adult education in addition to the time consuming day work. Furthermore, the desirability for certain units that the teacher be a person of some maturity and experience often makes it important to search outside of the day school for some of our teachers. The search has been for persons with home economics training, home experience, special interest and experience in some field of home economics, and personality that would hold adult classes. By using every means possible to locate home economics trained homemakers we have been successful in securing a sufficient number to add to our qualified day school teachers to keep our programs going. It should be made clear at this point that not always do we confine ourselves to persons with home economics training. If we find a woman who we believe can handle a special unit well but who has had no home economics training we use her. This year we have two such people in our group. One is a woman who is a mother and a grandmother. She has always enjoyed making children's clothes and has been most successful in so doing. She has had some teaching experience so that she has had this background to build on. Her daughter has been taking a college course in home economics so the mother has followed the clothing courses through the girl. This has helped her to keep in touch with modern methods of work. This woman has taught Children's Clothing units for us with success. Our teacher of cosmotology, too, has not had home economics training. It would be obviously difficult to secure a person with such training qualified to handle the subject. This process of finding and training people has to go on continually, however, to meet the growing needs of the program. Having secured some potential teachers the next problem has been to train them.

The methods course constituted the first part of the training. This course considered the methods of organization and conducting adult classes. An effort has been made to make the course hold closely to the actual problems of organization and teaching which a teacher has to face in offering a short unit course. The following topics show how very specialized this particular methods course of ours is.

Organization of Evening School Classes in Home Economics

For whom courses are designed.
Minimum requirements of age, time, qualifications of teachers.

Developing a Program of Evening School Work

Aim of evening school classes.
What the classes may teach directly and indirectly.
Organization into short unit courses.
  Advantages of unit organization over long term courses.
  Independent units.
  Progressive units.
Making plans for units as a forerunner of publicity.
Finding out what the women want and need.
Planning units on this basis.
Planning units which will make a well rounded homemaking program.

Planning the Work of Each Unit

Why planning pays.
Deciding the contents of each night's lesson.
  The relation of this information to the length of the unit.
Planning for the use of time within the lesson.

Publicity

Planning for publicity.
Means of reaching the women.
Importance of title of course.
The content of publicity.
Types of notices to use.

The First Night

The significance of handling the first night wisely.
What should go into the first night.
  Outline of course.
  Some definite, interesting lesson which will create interest in the course.
Importance of illustrative material for first night.

Planning a Definite Unit to Teach

Choosing the unit.
Factors affecting choice.
  Interest and enthusiasm for subject.
  Training.
  Experience with subject matter.
What shall be included.
  Statement of objectives.
  Outline of lessons.
  Plan for method of teaching.

(*Continued on page* 93)

Why We Need Minerals in the Diet

By Amalia Lautz, B.S., Ed.M.

MINERALS or ash constituents are being constantly discussed because an ever increasing amount of investigation concerning them is being carried on. While there is much more to discover concerning their importance to the body and their consequent importance in our daily food, many interesting facts have already been found out. Minerals are some of the most important of body building materials, especially of the skeleton and even the tiniest conceivable amounts of minerals in blood and tissues have amazing power to regulate our body functions.

In the body of an average sized grown man there are about the following amounts of various minerals:

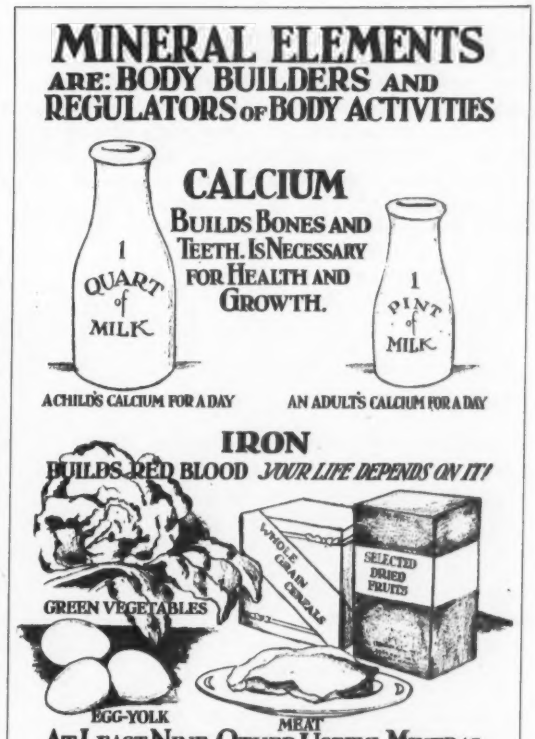
Mineral	*Pounds*
Calcium	2 1/3
Phosphorus	1 1/2
Potassium	1/2
Sulphur	2/5
Sodium	1/4
Chlorine	1/4
Magnesium	1/13
Iron	1/160
Iodine	1/1600
Fluorine, Silicon, Manganese	Traces

While each and every mineral is important in the body and while we cannot get along without a single one, there are certain minerals which we are more often urged to be sure to include in our diets than the others. This is because, in the unplanned American diets, these minerals have often not been included in the daily food in large enough amounts, and this has produced poor bodily development and disease in many American people. These important minerals which we are apt to miss in their proper amounts are calcium, phosphorus, iron, and iodine. Because of disturbances such as rickets, simple anemia, and goiter, much is written and taught concerning minerals. Doctors, dietitians, nurses, and teachers are urging everyone, especially developing young people and growing children, to be sure to have these minerals in sufficient amounts in their food.

Calcium and phosphorus, as can be seen by the table, are the minerals found in the body in the largest amounts. To them, the rigidity and firmness of our teeth and bones are largely due. Dried bones, without the marrow, are about 3/5 mineral matter. Most of this is calcium phosphate with some calcium carbonate and other minerals. The importance of the right material to make our bones and teeth is brought home to us when we have to go to the dentist or when we see the results of rickets as shown by a poorly developed chest, or in bowlegs.

Calcium helps control the way our muscles contract, and in that way is concerned even in making our hearts beat regularly. If it is not present in the right amounts, our nerves will not react properly, and unless calcium is present, blood will not coagulate normally and so prevent too much bleeding in an operation or injury. Calcium may make good the effects of wrong amounts of sodium, potassium, or magnesium in the body. You can see how vitally important it is for keeping us well. It is so important that our bodies draw on our bones and teeth to regulate functions controlled by calcium, if we do not include enough of it in our diets. This is especially important to remember, while growth is going on and for all young girls and young women who are looking forward to a happy motherhood when they must transmit so much calcium to the baby to form its skeleton during pregnancy and to give it enough of the only right infant food, human mother's milk.

Phosphorus is found in more body compounds than any other mineral. Our bodies are composed of living cells elaborately built of the many substances, which form the actual living matter, the protoplasm. In every cell, phosphorus is prominent, for instance as a part of the fat-like substance lecithin, and also in glandular and nervous tissue, in sexual elements and in milk as well as in the skeleton. Phosphorus has to do with cell movement and multiplication and help the tissues to hold the proper amount of moisture. It has to do with keeping the blood neutral and assists in regulating the burning of carbohydrates, which provide us with much of our energy for work and play.


MINERAL ELEMENTS
ARE: BODY BUILDERS AND
REGULATORS OF BODY ACTIVITIES
CALCIUM
BUILDS BONES AND TEETH. IS NECESSARY FOR HEALTH AND GROWTH.
1 QUART of MILK
1 PINT of MILK
A CHILD'S CALCIUM FOR A DAY
AN ADULT'S CALCIUM FOR A DAY
IRON
BUILDS RED BLOOD YOUR LIFE DEPENDS ON IT!
GREEN VEGETABLES
WHOLE GRAIN CEREALS
SELECTED DRIED FRUITS
EGG-YOLK
MEAT
AT LEAST NINE OTHER USEFUL MINERAL ELEMENTS ARE FOUND IN FOODS. EACH ONE HAS ITS OWN USE.

Poster reproduced by courtesy of the National Child Welfare Association, prepared with the aid and approval of Dr. Mary Swartz Rose of Columbia University.

Iron, too, is a part of living cells. The chromatin, essential for the life of every cell, is composed of complex proteins which contain iron. The red blood corpuscles also contain a most important protein, hemoglobin, of which iron is a necessary constitutent. Upon chromatin and so upon iron, the nutrition, growth, and multiplication of cells and consequently our very life depends. Upon hemoglobin, and so upon iron, depend the carrying to the cells of the oxygen we breathe and the carrying away from the cells of the carbon dioxide which we exhale, actually the very breath of life itself. If the hemoglobin is diminished and a smaller load of oxygen can be carried by the blood one breathes more rapidly and the heart beat increases, because the blood must circulate faster to keep up the oxygen supply to the tissues. These very vital functions of iron as a part of chromatin and hemoglobin show how exceedingly important this 1/160 of a pound of iron in our bodies is to our daily living, and how necessary it is to keep up this supply through iron containing foods. Because babies come into the world with a reserve supply of iron to use while they are on the milk diet of the first year,

it is particularly important that all girls and young women keep up their iron supply in addition to the calcium content of their food, especially during pregnancy, to be in good condition for the supreme creative task of handing on life and producing normal healthy children.

Iodine, which is present in the body in such an exceedingly small amount, shows plainly how powerful these mineral constituents are. It is found in the thyroid gland, the secretion from which influences the rate at which our cells burn, the state of our nerves, our emotions and even the working of our minds. Unless during growth, iodine is received to enable the thyroid gland to function properly, normal development is impossible and our health is affected; even if we are grown, the growth of hair, expression of our faces, and changes in the skin, the state of our feelings and nerves all show this. Goiter is one of the visible disagreeable signs of insufficient iodine intake. All such disturbances can be prevented by including enough iodine in the diet. This is again especially important for young developing girls, and during pregnancy.

A further mineral required by the body, but which is not apt to be left out of the diet, is sulphur, a part of protein in the body, and a regulator of cell burning. Sodium and chlorine, too, we get in large amounts, often in too large amounts, as common table salt. Sodium chloride influences the amount of water retained by the body, and so has something to do with firmness of flesh. The greater the amount of salt eaten, the greater is the amount of water in the tissues. Chlorine with hydrogen forms the hydrochloric acid necessary for normal gastric digestion. Minerals, especially sodium and phosphorus, help to keep the blood neutral, not too acid and not too alkaline. Potassium and magnesium we get in large amounts in an ordinary mixed diet. Concerning the tiny traces of fluorine, silicon and manganese, we know almost nothing, for these remain to be investigated.

Our practical problem is to be sure to include in our food enough of the minerals we are apt to lack in our daily diet. Calcium, a common deficiency in the United States, is best supplied by a quart of milk a day used either to drink or in the cooking. A quart of milk a day is a good amount for everyone to take, but is necessary especially for all growing or developing children and young people, and for women during pregnancy and while nursing the baby. Phosphorus in the right proportion to utilize with calcium is also found in large amounts in milk, as it is in egg yolk and meat which are valuable to us as sources of iron. Iodine is found in sea fish, in drinking water near the sea shore, and in foods raised near it. In inland regions where it is lacking, it is well to use some sea foods, but the lack of iodine in such regions needs to be made up by using the amount prescribed by a physician. A liberal use of fruits, vegetables, and whole grain cereals, adds further to our supply of calcium, phosphorus, iron, and other minerals as well as being valuable for bulk and vitamins.

We find then that the advice of nutrition experts to include in the daily diet a quart of milk, an egg, a serving of meat or fish, a whole grain cereal, two fruits, and two vegetables is good advice, if for no other reason than that these foods supply the necessary minerals which may be lacking in an unplanned dietary; the minerals which are a part of our flesh and blood and bones and which in a very complicated and wonderful way influence and regulate the countless delicate processes going on constantly in our living, breathing, active, thinking bodies.

Reference: Chapters VII and VIII, "The Foundations of Nutrition," by Mary Swartz Rose.

My Experience in Teaching Boys Camp Cookery

By Ethel V. Antes

Teacher of Homemaking, Hawthorne Jr. High School, Yonkers, N. Y.

THE problem of getting just the right thing in line of club work for boys and girls in the junior high school is a difficult one. One boy expressed himself in this manner: "I don't want to be educated; I want to do something ." Thus, to the children's mind, club means a period of activity.

The girls are fairly well taken care of but we do not have enough men teachers to take care of all the boys who wish to study automobiles, electricity or build motor boats.

It has long been my contention that boys should be taught simple nutrition and food selection; so with that in mind, I decided to start a camp cookery club for boys. Sixty boys chose this club.

In order to give all these boys a chance at cooking, they were divided into five groups of twelve boys for a course of seven lessons. The club meets every Tuesday afternoon from three to four o'clock.

After electing officers, they decided to have as dues for the course, twenty-five cents. The balance of the cost of food is borne by the school fund.

Because of so little time, only such recipes as can be quickly prepared are used. A typed copy of the course, including recipes, are given each boy at the end of the course.

The following lessons are given, changes being made as better recipes and ways of teaching them present themselves:

1. Organization; simple theory of nutrition.
2. Out-door meals; the fire; equipment and plan of work, Mulligan.
3. Food selection; gypsy egg sandwich and cocoa.
4. Corn chowder and spider-corn bread.
5. Baking-powder biscuits.
6. Flapjacks and cocoa.
7. Broiled steak and bacon sandwiches; baked eggs.

The aims in presenting these lessons were to help the boys acquire skill in preparation of foods and to teach the proper selection of foods, having in mind the needs of camp life or an emergency at home. So far as possible, food values are stressed, but, again the time factor enters in so that not a great deal of instruction can be given.

It seems almost unnecessary to say that these cooking lessons are heartily enjoyed. The doing of something, the cooking of something good to eat and the eating of his own products—all this surely would appeal to almost any boy. From the time of entering the laboratory and scrubbing up, to the time of washing of the towels and putting the unit kitchens in order, the boys are energetic and work in a most business-like manner—even their sisters could not surpass them. They bring with them an interest which lasts through the lesson and which, we hope, will remain with them through the days to come.

How It All Began

(*Continued from page* 70)

the boughs. (He proudly displays the birch bark cups.)

(All three sit down by the fire. Little One rises and gives his mother and father each a cup, keeping one for himself.)

(Loving One rises and passes the pot of water, filling each cup. They drink Then she takes pieces of cooked meat from the fire, places the meat on the leaves that Little One has gathered and passes it to each one. Great One raises his hands to heaven in adoration. Little One and Loving One do likewise.)

Great One—Oh! ye all powerful! Ye gods of the freezing cold and blinding withering heat. Ye gods of the mighty waters, of the howling winds, and ye who ride on the lightning and hurl the thunder bolts. Oh! ye gods! we thank thee for the great mercies you have shown us.

(All make low obeisance.) Tableau.

Curtain.

The Food Value

of Knox Sparkling Gelatine finds quick response when you demonstrate its uses in salads and desserts.

Pineapple Ice-Box Cake

(6 servings)

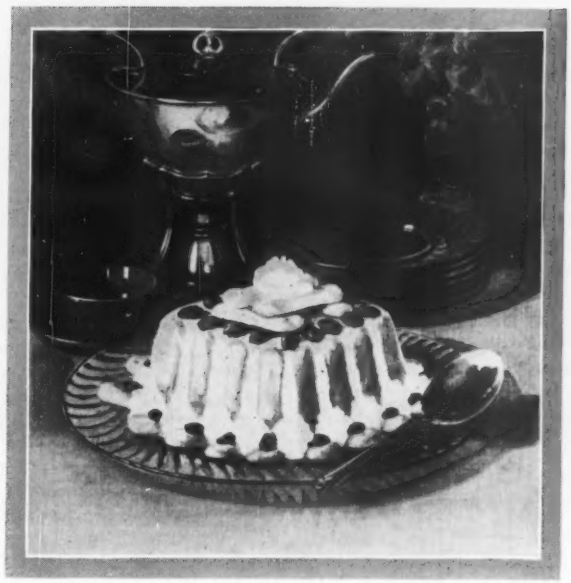
1 level tablespoonful Knox Sparkling Gelatine
¼ cup cold water — Few grains salt
1 cup canned crushed pineapple — ½ tablespoonful lemon juice
¼ cup sugar — ¾ cup cream, whipped
Lady fingers, or stale sponge cake

Soak gelatine in cold water about five minutes, and dissolve over boiling water; add pineapple, sugar, salt and lemon juice. Stir until all gelatine and sugar have dissolved. When beginning to thicken, beat and fold in cream. Line sides and bottom of round or square mold with lady fingers; cover with pineapple cream mixture, then alternate cakes and cream until mold is full. Place in ice-box and let stand three or four hours. Unmold on cake plate; garnish with whipped cream and berries.

Isn't it true that housewives often think that desserts are hard to digest? The home economics expert, however, who has experimented with Knox recipes has splendid material to overcome this opinion. For Knox Sparkling Gelatine is a pure protein and quickly assimilated. When served with fruit and vegetables it enhances the nourishment of these valuable foods. There are so many ways to present its uses. And Mrs. Knox's recipe books are full of suggestions for making aspics, jellied soups, salads, meat or fish loaves, desserts and candies.

Pineapple Ice-Box Cake is an ideal example of a nutritious and most delicious dessert. It is easy to make and is exceedingly inviting in its appearance.

We have available special books treating of the nutritive and dietetic uses of Knox Sparkling Gelatine, especially in the feeding of children and invalid diet, as well as a valuable new cook-book. We will be glad to send them to you.



Pineapple Ice-Box Cake

To teachers of home economics!

Copies of our Electrical Refrigerator Recipe Book will gladly be sent you together with lecture material and Knox Sparkling Gelatine free for use in home economics classes. It will be necessary for teachers to advise us—on school stationery—of the date when classes will be held and of the number of pupils to be in attendance.

Mrs. Knox
Charles B. Knox Gelatine Co.
111 Knox Avenue
Johnstown, N. Y.

Please send me a copy of your new recipe book. I should also like to have the special booklets (check booklets desired.)

[ ] Electrical and Refrigerator Recipe Book
[ ] Varying the Monotony of Liquid and Soft Diets
[ ] Diet in the Treatment of Diabetes
[ ] The Value of Edible Gelatine
[ ] The Health Value of Knox Sparkling Gelatine
[ ] Reducing Diet
[ ] Recipes for Anemia

Name .....

Address .....

Grocer's Name .....

Mr. Milk---A Story for Youngsters

By Florence E. Flannery

Instructor in Home Economics, Public School No. 28, New York City

HERE is a picture of a very good friend of yours. He lives right across from the clean house where so many of your other friends live. The water and fruits and vegetables and brown bread are certainly very nice people and you could not get along without them. But here's a jolly old fellow who is ready to help you most of all. Goodness, he's strong. He has everything in him that your body needs. He'll give you nice pink cheeks and bright eyes, and help you to get your lessons all right. He lives very pleasantly inside this Milk Bottle, and is just waiting to help little children. But alas some foolish people spoil everything by taking milk too quickly. That's silly, for then the milk can't help you at all. It gets all tied up in a hard ball inside your stomach, and it has a very hard time to get out. You must always take milk very, very and one more very, slowly. Let's write it very big so we shan't forget, "SLOWLY," right alongside the milk bottle.

Where he belongs!

Your mother could hide him in many ways. He loves to get all covered up and see if his friends know he's there. You could take a nice big bowl of oatmeal, like the Three Bears had in the woods, and you could pour milk all around it like a little lake. It's a funny lake though, for pretty soon it disappears. It's all gone! Not really, for the milk is hiding in and out and all around the oatmeal. You begin to eat it very *slowly*, and chew it, and the sly fellow goes right into you and begins to make you very strong.

He doesn't care how hot he gets. A steaming cup of cocoa is just the place he likes to be. Right in the middle he sits and waits for you to take a sip. Of course you'll like it and go right on and drink the whole cup. No one needs to tell you that you will do it slowly. Indeed, if you try to go too quickly, he is likely to burn your little tongue.

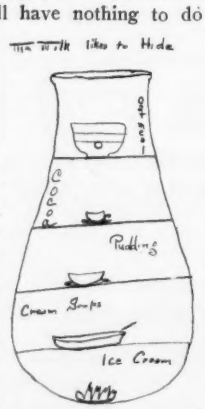
Chocolate pudding is another favorite of his. Goodness but how good that tastes! Just to fool you, he dresses himself all in brown, like the cocoa, and this time you *have* to take him slowly, for the pudding is very thick.

On a cold winter day, mother could put him in cream soup. That's delicious. You'll meet some of your other friends there, too. For you could have cream of corn, or cream of tomato soup, or about a dozen other kinds.

And last and maybe best of all, he sometimes hides in ICE CREAM. Isn't he nice to come to you in so many ways? No wonder he looks as if he were smiling. Never once does he get tired of helping you. When you are a baby, there he is. When you are a big girl of six, he's still your good friend. He'll never leave you, even when you get to be a nice old lady.

Let's draw his picture again, and this time put in some of the ways in which he hides:

Nearly everyone likes him very much. But one person doesn't. He isn't a good friend of children at all. He makes them nervous, and makes them bite their nails, and sometimes he makes them have headaches. He lives in this old coffee-pot. He doesn't look very happy; indeed, he seems to be crying. We'll have nothing to do with him for he tries to take all the little friends away from the jolly milk. Do you know why he's crying? Because he's going to be put in jail. Let's do it now. We'll make a big, strong one, with iron bars and a great steel lock, and there he can cry all he wants to, but we won't let him out to harm little boys and girls.



Instead we'll jump on the jolly milk train coming in from the country and make out we're all bottles of milk and we are going to hide in different ways. When the milk train comes into the station, each bottle jump off, very gently of course, or you'll break to pieces, and tell how you're hiding. Maybe you know some ways that no one else has thought of. That will be fine.

And the minute you get home tell mother how to hide your very good friend so that you'll be able to meet him often and let him help you.

Sunflower Seeds

By Kathleen Ludwick

Portland, Oregon

WHEN it comes to the matter of Sunflower Seeds, the Russians have nothing on the Indians in the western part of the United States. Their methods of harvesting were certainly arduous but the event justified the means. Those oily, nutritious little seeds, no doubt, saved the tribes from starvation during hard winters when the deep snows drove the game far away and hunting was a difficult matter. Their use seems to have been universal in all the arid and semi-arid western states. Many a time in my childhood days in northern California, I have watched the Indian women harvesting the sunflower crop.

Great, cone-shaped baskets that hung almost to their heels, called jokis, were borne by straps across their foreheads. Often babies were also carried in the baskets, sometimes in pappoose cases, and sometimes on the mother's shoulders. Jokis filled with seeds and a baby besides, made quite a burden for the patient and uncomplaining women.

In their hands they carried small, shallow baskets. With one hand they held a sunflower head over the basket and tapped it lightly with a small stick so the seeds shattered out into the basket. The contents of the small baskets were emptied over the shoulder into the larger baskets.

To prepare them for food they were rolled with rolling stones shaped much like rolling pins, on slightly hollowed stones to loosen the hulls. Afterwards the hulls were winnowed out, sometimes by blowing the breath, sometimes on a windy day. The seeds were eaten dry, or made into meal and moistened with water. One Indian woman would often gather ten or twelve gunnysacks full of the seeds. Before the advent of the whites, sacks made from tules or other rushes or grasses were used.

After the white man came, the Indian women followed the reapers and gleaned in the wheatfields. Many a time our good old Minnie gleaned wheat till she had a dozen sacks stored in my father's barn. No one but old country peasant women ever worked harder than these industrious Indian women who have so often been scornfully and ignorantly maligned by being called "lazy!"

Kellogg's Service for Teachers

THE Kellogg Company offers the services of its Home Economics Department to teachers. This department, which is directed by a home economics woman, prepares material with your problems especially in mind.

Types of Service

Printed pamphlets on normal nutrition, special diets and every-day cookery. Recipes for the use of cereals. Lecture-demonstrations on diet and health, and meal planning. Wall Chart—"The Story of Corn and Corn Flakes."

KELLOGG COMPANY, Battle Creek, Michigan
***Makers of Corn Flakes, Pep Bran Flakes,* ALL-BRAN,**
Rice Krispies, Kellogg's Shredded Whole Wheat Biscuit
—also Kaffee Hag Coffee—the coffee that lets you sleep.

HE-3

KELLOGG COMPANY
***Home Economics Department,* Battle Creek, Michigan**

Please send me material appropriate for teaching foods in_____ grade or _____ High School.

Name_____

Address_____

Kellogg's

FOR HEALTH

The Teachers' Exchange Department

MAY DAY, 1929

MAY DAY—Child Health Day—has become an institution and an educational force for promoting the health of the child, which is, as the seal of THE AMERICAN CHILD HEALTH ASSOCIATION tells us, "the strength of the nation." It is the one day in the year set apart for serious consideration as to how far we have gone in assuring to children a sound mind in a sound body, and in organizing and solving problems of health and well being. This year, however, there is something more that is asked in the name of American children and youth. THE AMERICAN CHILD HEALTH ASSOCIATION tells us that "May Day—Child Health Day, 1929, challenges us to provide for American children the kind of recreation that means invigorated bodies and spirits elevated by the joy of pure recreation, of play for play's sake. There must be space for play, equipment for play, education for play, physical fitness for play, and the kind of athletics that means a team for everyone and everyone on a team, and sports of every kind from basketball to snow-shoeing and tennequoits to archery. When we have equipped the children and youth of today with the principles and spirit of real play and pure recreation we will have advanced much further in making the youth, who are the strength of America, strong. Let us this year, when the President proclaims May Day—Child Health Day, pledge ourselves to foster in American childhood and youth the joy of pure recreation, the spirit of play."

HOT LUNCH

HOME Economics was offered in the ninth grade only, and the class was small. Many of the children in the school brought their lunch, so I decided to work out a plan for serving hot lunches in connection with the food class which started in the second semester. I lacked a great deal of necessary equipment and had the first two periods of forty-five minutes each for the class, so I knew I had a difficult project for this ninth grade, but time and patience made good partners. For two weeks the regular class met without any mention of hot lunch, as I wanted the girls to know something about their subject and the principles of elementary food work before we started on the hot lunch project. When the idea was mentioned, the girls were much pleased and very enthusiastic. We discussed menu making, the need for a hot lunch, the characteristics of a good hot lunch, and the types of food that might be used at different seasons of the year and for children of various ages. Two girls planned the menu for a week with my help. We usually met after school to do this and sometimes it took us quite a while, as often the girls wanted to select the foods that they liked or that their friends liked. When this did not interfere with the balance of the meal, I usually let them have their way. The foods were partly prepared by the class but we hired a woman to help with the cooking. The girls planned and served the food. We served on an average of fifty per day, and when the weather was bad we served as many as eighty. We charged twenty cents a day for the month, or ninety cents a week for those who bought their lunches every day.

Our regular food lessons were carried on without allowing the hot lunch project to interfere, but as the girls became more experienced we gradually worked in problems connected with the lunch. The girls would peel potatoes, some would cut cabbage, wash spinach, etc., while their food was cooking. Two girls would set out the dishes to be used on a large serving table, and one girl would fold paper napkins. If we had a roast for the day, we would always prepare it before the arrival of the woman who helped in the cooking. She came at ten o'clock and worked until the dishes were done after lunch. She made all of our pies, cakes and cookies and took charge of any cooking that had to be done.

Two girls each week served the lunch and received their own luncheons. They arrived at eleven thirty, helped dish the foods on the plates, sliced bread, filled water glasses, and did whatever was necessary before the pupils came at twelve o'clock. After lunch these same girls gathered up the dirty dishes and brought them back to the kitchen, but they had nothing to do with the washing of them. The girls were glad when their time came to serve, and some of them took a much greater interest in class work because of the hot lunch.

There were always a few children who could not afford to buy the meal but who were very undernourished and needed it. The Masons of the town paid for these children.

We cleared $150.00 on our hot lunch project besides paying for the girls' cooking lessons. It took a lot of time but it stimulated community interest in the home economics work, and was much appreciated.

Lillie Roberts.

SERVING LUNCHEON FOR THREE HUNDRED SUPERINTENDENTS

ONE Saturday after a strenuous day of shopping and a matinee I received a message from my supervisor that the Home Economics Department must prepare a luncheon for three hundred superintendents on the following Tuesday, and that all of the home economics teachers in the parish (this was in Louisiana) would have to assume part of the responsibility. There are twenty foods teachers in the Orleans Parish School.

Every teacher who had a class in foods on Monday had her girls make five pounds of potato salad and a butter cake. The cake was baked in muffin tins or in layers. In my case the 8B girls who were inexperienced made the salad, and the 8 A's were given cake making as a regular lesson. The food prepared in the various schools was transported to the school where the luncheon was to be given, and volunteers from each class offered their services. Monday afternoon doilies were placed on the paper plates, napkins were folded, waxed paper cut for wrapping sandwiches, and jelly poured into individual paper molds, for this was to be a cafeteria style meal.

On the day of the luncheon each teacher was given a card assigning her a definite part of the work. Sandwiches were made by groups of girls working together, one spreading the bread with softened butter, the next adding lettuce and the next the filling. Others wrapped the sandwiches and put the various kinds in separate piles. Pickles were arranged on paper plates, the salads placed ready for serving; the coffee, cream and sugar arranged in a convenient place and a girl stationed to fill the cups. Toasted rolls, frankfurters and ice cream were also provided and girls assigned under the supervision of the teacher to serve them. When the superintendents arrived they passed down the line of desks selecting what they wanted, and most of them sampled everything!

A luncheon was served promptly at twelve o'clock, and at three the kitchen was spic and span. The cost of the meal was twenty-five cents per plate. It was a big job and hard work, but due to the capable organization of the supervisor and the enthusiastic cooperation of the teachers and students it was a success.

Grace Hirn.

Elementary Homemaking Education in Iowa

(*Continued from page 67*)

Our second visit takes us to a rural consolidated school. On this particular morning the eighth grade girls are weighing and measuring the kindergarten children for the second time this month. Marking gains and losses on the graph weight charts is watched eagerly by the kiddies and almost tensely by the class members. When the study of the importance of nourishing food was started in class, this eighth grade group was disinterested and bored. After having an opportunity to observe the kindergarten children, however, each girl came back to class impressed with the difference between the alert, peppy group and the numbers of pale, frail children who were in the majority. A discussion of signs of health in the children brought out such factors as: clear skin, rosy cheeks, glossy hair, bright eyes, lots of energy, full of fun, liking to work and play and good posture. Weighing and measuring each child to determine his actual height and weight relative to the desirable standard was the stimulus for one girl to suggest that she was going to adopt the sorriest looking little boy in the room to try to improve his eating and sleeping habits. The other girls followed suit and each little charge was urged to eat breakfast, drink milk, go to bed at 8 o'clock and give up candy except after meals. As a class project, hot lunches have been served at noon for two weeks. Now, if each of the underweight ones has not gained, the entire class is concerned and the little mother greatly discouraged. When we ask the home-making teacher if her girls have been interested in their own health habits as a result of this project, her answer is decidedly affirmative.

Finally we arrive at "X" on the morning when the final breakfast of the breakfast unit is to be served. The table fern, immaculate table cloth, shining (nickle) silver and artistically arranged table appointments show an appreciation of beauty and order has been developed. The simple menu—baked apple, wheatena, muffins, jam and cocoa — is served on time and it is most appetizing. The manners, courtesy and conversation exemplify the good manners of everyday- living. Having the group impersonate the father, mother and children rather than the host, hostess, maid and guest gives the idea that manners are not for company only. When we learn that the breakfast for each group was prepared by two of the six girls, that they have done all of the planning, preparation and marketing, we marvel at the efficiency of these eighth grade girls. We cease to marvel though when we realize that each time food has been prepared, it is served at the table, that simple breakfasts were served just as soon as the class had learned to cook enough food to make a breakfast, that the class has thought through and decided for themselves each time the order of work, time schedule and equipment needed, and that repetition has been provided in order to develop skill. Credit for this repetition being well motivated is due to that all-inspiring person—the homemaking teacher with *ideals*.

Pamphlets Received

"Economic Aspects of the Beef Cattle Industry." By Edwin C. Voorhies and A. B. Koughan. Bulletin 461. University of California Printing Office, Berkeley, Calif.

"Grapefruit." By H. R. Wellman and E. W. Braun. Bulletin 463. University of California Printing Office, Berkeley, Calif.

"Lemons." By H. R. Wellman and E. W. Braun. Bulletin 460. University of California Printing Office, Berkeley, Calif.

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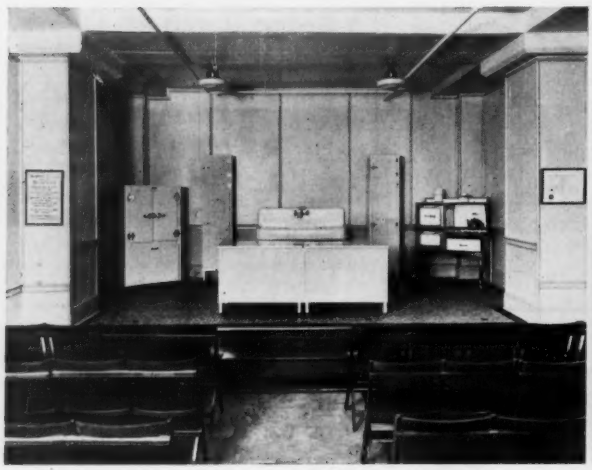
Two Views of the Home Economics Department of McCormick and Co., Baltimore, Maryland



The Hughes Co.

The new demonstration kitchen in the Home Economics Department of McCormick & Co.

The Hughes Co.

The dining room is an attractive place, with its gay draperies and well-selected furniture.

Books of Interest to Teachers

"Food Products, Their Source, Chemistry and Use." Third revised edition. By E. H. S. Bailey, Ph. D., and Herbert S. Bailey, A.B., B.S. P. Blakiston's Son & Co., Philadelphia. $2.50.

PRODUCTION, manufacture and preparation of the many foods which we use on our table is the vast field covered by this well-known book. Detailed discussions are not given; the most important points are covered in a manner which makes the book invaluable for reference work in the library of the school, the dietitian or other home economics worker.

As in the older editions of this book, the topics are grouped together according to source. For instance, glucose and confectionery are considered in the chapter on sugar. This method is helpful in giving a bird's eye view of the food product, and coupled with the excellent index, makes it simpler to find the matter on any particular subject.

Marked changes in sources, marketing and production have necessitated practically rewriting several sections of the book. The chapter on alcoholic beverages has been omitted, but condensed information on the subject is retained in the chapter on sugar. Additions were made in such subjects as milk and its products, including ice cream; citrus by-products and pectin made from apple waste and the peeling of citrus fruits; coffee; chocolate; vitamins; carbonated beverages; bananas; packing and preserving eggs; honey; edible vegetable oils; rice; macaroni; jams, jellies, canning; bread and baking; cane sugar. Authorities in each line have supplied material which has been used by the authors.

The pure food movement has become so important in the last few years that a chapter has been added on such legislation and its effect on the home.

In this edition, the name of Herbert S. Bailey, A.B., B.S., formerly Chief, Division of Fats and Oils, U. S. Bureau of Chemistry, is carried on the title page as co-author.

So many changes have been made in this new edition that it should be substituted for the older editions in the libraries of those who know this scientific, yet unpretentious, book; and it will be a valuable addition to libraries lacking the older editions.

LULU G. GRAVES.

"The Food Value of the Banana." By the Research Department, United Fruit Co., Boston, Massachusetts.

THIS is a compilation from recognized authorities of the general facts of nutrition and more specifically of the way in which the banana can be used to meet certain dietary needs, especially as an important source of carbohydrates. The value of the banana as an article of food has long been recognized and this booklet emphasizes it by quoting many leading authorities on the subject.

It is an interesting work on the subject of bananas, well gotten up, and useful for classroom work or for reference.

Home Specialist Appointed in the Department of Agriculture

THE appointment of the first Federal extension specialist in home management to give her time exclusively to this phase of the work is announced by C. W. Warburton, Director of Extension Work, U. S. Department of Agriculture. The new home management specialist is Mary A. Rokahr, who assumed her duties on February 1. Miss Rokahr comes to the department from the University of Wyoming where she has been state home demonstration leader and home management specialist for the last nine years. She is a graduate of the University of Nebraska and of Columbia University, New York.

Home management extension activities, Director Warburton says, will relate to problems in the organization and operation of the farm home. The ultimate goal of the extension program is to render available all information obtainable which would enable rural homemakers to procure, in return for the expenditure of time, money and material resources, the greatest possible advantages to the family in health, comfort, and individual development. The extension divisions of the state agricultural colleges have been giving an increasing amount of attention to the subject of home amanagement in recent years and it is felt that through the service of a Federal specialist more rapid progress may be made in the work.

Developing Adult Education in Home Economics in Arizona

(*Continued from page* 84)

Problems in Teaching Methods

Division of time.
Teaching versus doing.
The demonstration method of teaching.
The problem method of teaching.
The case method of teaching.
Methods of securing discussion on part of class members.
The use of illustrative material.
Standards for a good adult class.

The Last Night

Aim of the last night.
Making a good and interesting summary.
Tying up work of unit to better family life if possible.
Interesting women in future work.

The work of the methods course has covered six two-hour lessons. This time would not be sufficient if students were not carrying observation of adult units parallel with the methods course.

Observation Units

When we first started the training of teachers we did not have good units of work for observation so we asked a member of the class to give a unit on "How to Dress Becomingly." The teacher training class and homemakers of the community constituted the class. The problems discussed in the methods class were then watched for in the observation unit and talked over in the training class. This gave point and illustrative material for the methods class. Now, we have a sufficient variety of units going on in the community so that it is unnecessary to organize any special one for observation purposes. Students can now be asked to visit units of different types so as to gain a breadth of experience. Thus, they observe clothing construction units such as "The Tub Dress," "Tailored Finishes," "The Stitched Silk Hat," "Foods Management," "Financial Management," "Child Behavior Problems" and others, thereby gaining from another angle an all-around point of view on the program.

Supervised Teaching

Each member of the methods class is asked to plan a unit which she would like to teach. As fast as opportunity develops, or we can develop opportunity, we help her to put on and teach the unit. By this method we are able to determine whether the teacher can handle the material she believes she is suited to teach and what further help the individual needs.

After the supervised teaching work any further training consists of individual and group conferences.

It may be interesting to note that we have been able to use every one who has had the training though it has sometimes been a year before our program of work made it possible to promote the units which an individual could best teach.

This plan of training teachers has seemed successful for Arizona as judged by the quality of teaching which we are getting and the support of the communities and school administrators. The training of teachers is but just one phase, of course, of a successful adult program. There still remains the planning of a well rounded program of units and an effective publicity plan before an adult program can be put over with success.

THE BUSY SUN

"In summertime we play outside
Fresh air and sunshine bless us,
Indoors with windows open wide
Good health is always with us.

"Then winter comes, at home we work,
We love it warm and jolly,
But if our rooms are close or dark
We'll suffer for our folly.

"Because those tiny little germs
Which make us weak and sickly.
In darkness there are lots of them,
But fresh air knocks the spots off them,
And sunlight kills them quickly.

(Reprinted from "The Health Bulletin" of the State Board of Health, Raleigh, N. C.)

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No. 2—Perfect Pies.
No. 3—Manual of Cakes.
No. 4—Quick Breads—Quickly made.
No. 5—Desserts.
No. 6—Soups and Sauces.
No. 7—Candies and Confections.
No. 8—Cheese and Eggs.
No. 9—Yeast Breads.
No. 10—School Lunches.
No. 11—Fish and Meat Dishes.
No. 12—Vegetable Cookery.

The "Manual of Cookery" consists of the twelve booklets listed above. It is an authoritative, helpful, educational project prepared by the makers of Crisco, the purely vegetable shortening and cooking fat. A copy of the Manual is yours for the asking and additional copies may be had for demonstration manuals or collateral text books.

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Home Economics and the Manufacturer

(*Continued from page 72*)

of her department goes to a school or college to lecture or demonstrate, it is always courteous to report to the head of the department before, rather than after the work is done. This is emphasized because trouble has been caused by its neglect. This has reacted unfavorably, not only on the offender but on representatives from other firms.

In a few states the Extension Staff of the college requests a demonstration for themselves before authorizing their home bureau agents to allow commercial people to come before their organized groups. This attitude is a wise one and the demonstrators have a right to feel well satisfied when they have won their acceptance of her service. Surely every dirctor wants this approval for her staff of field workers.

Today in the Home Economics Department of the Kellogg Company, which is five years old, our aim is very much the same as it was in the beginning—to give intelligent service to those who ask for it or are willing to receive it. We have learned much from our association with others and feel better able to offer something definite in line with the profession of the persons who cooperate with us. That the number of requests for information and demonstrations increases materially each year seems to indicate that the Home Economics Department for a cereal company has met a need. The educational departments for firms manufacturing widely different products have had the same experience. Women who have specialized along certain lines have today an opportunity to spread their knowledge through channels, enormous in extent. Their classrooms are only limited by the lands to which mail is not carried and trains do not run. And, perhaps, the best of it all is that they are not responsible for the discipline of their students!

MEETINGS AND CONVENTIONS

THE Second National Conference of Supervisors and Teachers of Home Economics was held under the auspices of The American Home Economics Association in conjunction with The Department of Superintendendence, National Education Association, February 25-26 at Cleveland, Ohio.

The program committee consisted of forty Supervisors and Teachers of Home Economics, representative of the various regents of the United States extending from Maine to California, and the specialists in home economics of the Bureau of Education, United States Department of the Interior, Washington, D. C.

The Annual Ohio State Educational Conference will be held at The Ohio State University, Columbus, Ohio, April 4, 5, and 6. The program lists a number of well known out of state speakers and should be very interesting. For further information address: Mr. Earl W. Anderson, The Ohio State University, Columbus, Ohio.

The Annual Meeting of The American Home Economics Association will be held this year at the Hotel Statler, Boston, Mass. The meetings will begin on Monday, July 1st and continue through July 5th.

Announcement has been made of The Fifth International Conference of The New Education Fellowship to be held at Elsinore, Denmark, August 8-21. The list of speakers will include well known authorities such as Dr. Marie Montessori, Professor Franz Cizek, Dr. Elizabeth Rotten, Professor Wm. Boyd and Dr. Ovide Decroley. An American delegation is being formed by the American Advisory Committee of which Dr. Wm. Kilpatrick of Columbia University is president. For any further information write to: Miss Marion Beaufait, Executive Secretary, The New Education Fellowship, Room 2370, 20 West 43rd Street.

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Sources of Materials *for use of* Home Economics Teachers

Below are listed booklets and other helps to home economics teachers. Send your request direct to the manufacturer, being sure to ask for material mentioned in THE HOME ECONOMIST.

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Successor to
Sunland Cookery

issued every month during the school year. Contains historical data, lesson material and recipes. More than 9,000 Home Economics teachers and Home Demonstration Agents depend upon this bulletin for dried fruit cookery and data. Free upon request to

California Dried Fruit Research Inst.
Pacific-Southwest Building,
Fresno, California.

Sunkist Food Bulletins

A series of monthly lesson leaflets furnished in quantity for class distribution during eight months of school year, to home economics classes. Fruit recipes.

A School Lunch Bulletin and diet booklet, "Telling Fortunes with Foods" will also be sent.

Dept. H. E., California Fruit Growers Exchange, Box 530, Station C.,
Los Angeles, California

"The Art of Making Bread"

Beautifully illustrated booklet, containing chart, picturing and explaining every step in bread-making. Also Wall Chart for Class Use and Outline of a Course in Bread Making.

Northwestern Yeast Co.,
1750 North Ashland Avenue,
Chicago, Ill.

A Catalogue of Special Diet Foods and Equipment

A booklet listing foods and equipment adaptable to the diabetic or obesity diet. Helpful to dietetics instructors offering diet in disease to college students.

The Chicago Dietetic Supply House,
1748 West Van Buren St.,
Chicago, Ill.

Meat

Material prepared for your Meat Study Classes. A series of lamb, beef and pork charts, showing retail cuts and their uses. Also, unusual meat recipes adapted from the French.

Swift & Company,
Home Economics Department,
Chicago, Ill.

"Food Value of the Banana"
Illustrated

A 24-page booklet presenting this subject in text and tables, on authority of leading dietitians.

United Fruit Company
Research Dept., 1 Federal Street
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Director, Division of Dental Hygiene, Board of Education, Bridgeport, Conn.

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